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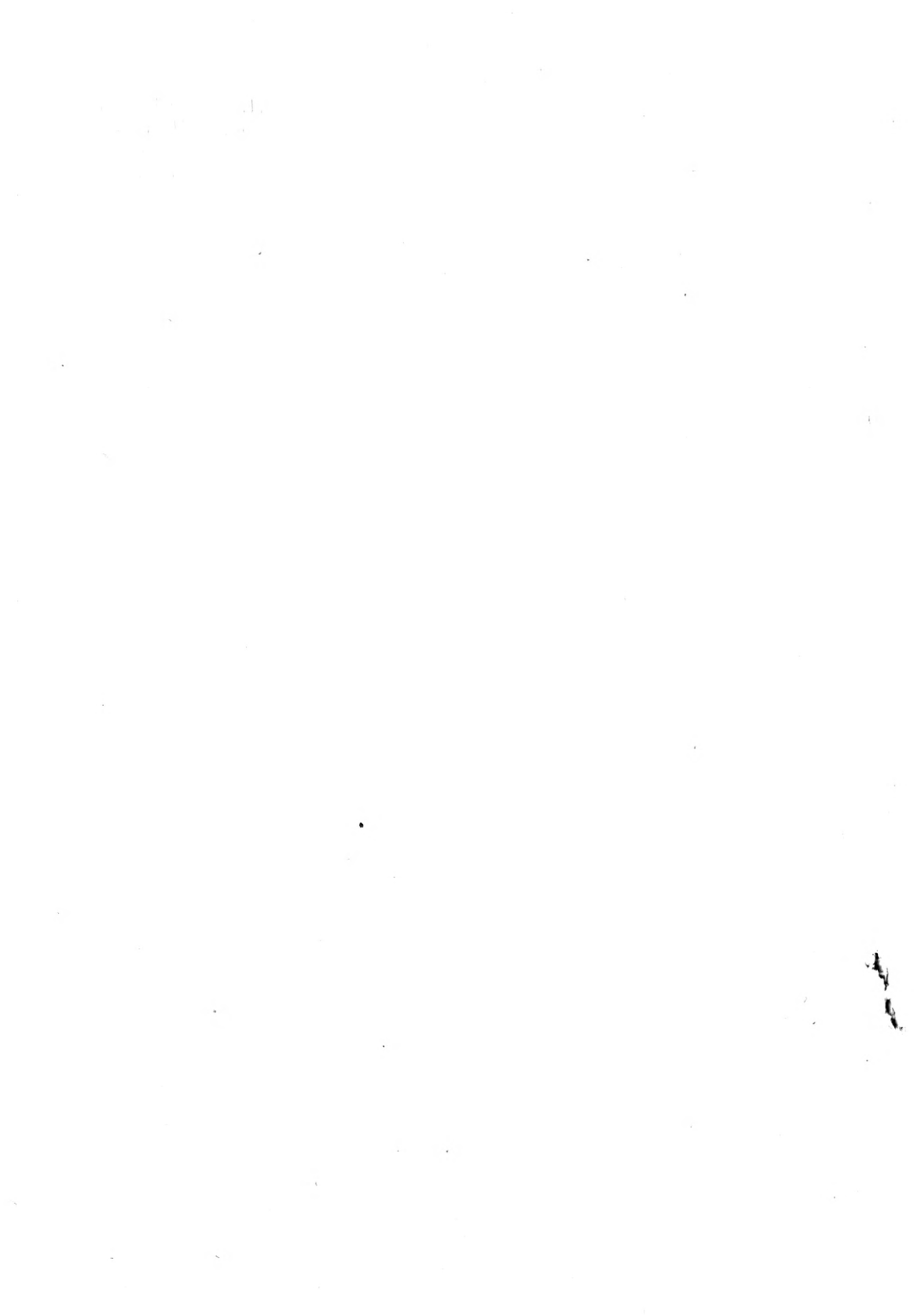
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FESSENDEN'S

SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOLUME I.



BOSTON:

GEORGE C. BARRETT.

FESSENDEN'S
PRACTICAL FARMER,
AND
SILK MANUAL.

Devoted to Agriculture, Rural Economy, and the Culture of Silk.

VOL. I.

BOSTON, MAY, 1835.

NO. 1

PUBLISHED MONTHLY BY
GEORGE C. BARRETT,

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T. G. FESSENDEN—EDITOR.

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all subscribers.

BOSTON, MAY, 1835.

PROSPECTUS.

*Fessenden's Practical Farmer and Silk Manual, devoted
to Agriculture, Rural Economy and the Culture of
Silk. Published monthly at fifty cents per annum.*

This is the title, and these the conditions of a
work intended to embrace the subjects of AGRICULTURE
and SILK CULTURE. It will contain,
chiefly, articles on Practical Farming and Rural
Economy, selected from the Weekly New Eng-
land Farmer, and therefore intended for those
who are not subscribers for that work.

We hope and believe that the culture of Silk,
in some, if not in all its branches will, eventually
become the employment of a portion of the family
of every farmer; and not only be made a source
of considerable profit to the individuals engaged
in this *fine art* but a great *national benefit*; not
only save *millions* to the United States now sent
out of the country for the *importation* of this
useful as well as elegant article, but become a
source of national income by its *exportations*.
There is a certainty of a sale for this article, as
the wants and the wishes of the wearers and
consumers will increase with the copiousness and
facilities of the supplies. The amount now con-
sumed in the country may be in some degree
estimated by reference to the value of the raw
Silk now imported, which as it appears by official

documents, exceeds TEN MILLIONS OF DOLLARS,
annually.

In connexion with subjects relating to Agriculture
the Practical Farmer will contain the experiments
and opinions of cultivators engaged in the grow-
ing of Mulberry trees, as well as the manufacture
of Silk; avoiding such theories and speculations
as might probably mislead, or be misunderstood
by those who are practically concerned in Silk
manufacture. And we would respectfully solicit
communications from those who are or may be
engaged in silk culture, to enrich the pages of our
SILK MANUAL.

Postmasters and others who may be disposed
to assist us in obtaining subscribers, will please to
retain 10 per cent of the money which they may
receive for subscriptions; and the aid of all who
are friendly to the objects of our periodical is
respectfully solicited.

GEORGE C. BARRETT, *Publisher.*

FOOD FOR SILK WORMS.

The first object claiming attention in attempting
to manufacture silk, is to provide food for the in-
sect artizan, to whom we are indebted for the raw
material. We shall not expatiate on the numerous
articles on which it is possible to feed silk worms,
but at present confine our remarks to that which
all allow to be the best and most profitable, provi-
ded it can be obtained. This, beyond question is
the foliage of the Chinese Mulberry, (*Morus Muli-
caulis*) which without doubt is emphatically the
silk worm's staff of life. But there is a doubt in
the minds of many whether this precious tree will
withstand our winters: some of which appear to
have been manufactured at the northern extremi-
ty of the north pole, and transported on the post-
horses of old Boreas into the territory of the

United States for the special accommodation of its inhabitants.

We think it safest not to relinquish the culture of the White mulberry for the present ; but let us examine the claims of the Chinese mulberry to that hardihood which alone can entitle that alien to become naturalized and a permanent settler in these United States.

In some remarks "*On the culture of Silk and the Morus Multicaulis or new Chinese mulberry,*" written by William Kenrick, Esq., of Newton, Mass. and published in the *New England Farmer*, vol. xii. page 393, it is observed "This Mulberry braves the most rigorous winters of France, not having suffered in the least even during the severe winter of 1829-30. I have taken particular pains to ascertain how they have fared in the extreme north of that country, and have very lately been informed by letter from M. Eyries, a gentleman from Havre, that they have supported well, during ten years the most rigorous winters of the north of France. He has cultivated them to a considerable extent from their first introduction to that country." * * *

"Very late in the Spring of 1833, more than a hundred young trees of the *Morus Multicaulis* were set out on the place of S. V. Wilder, Esq. in Bolton, Worcester county. The soil springy, the exposition cold and sloping to the north ; Mr Joseph Breck, a distinguished botanist of Lancaster, the town adjoining, having especial charge of these plants, has lately very critically examined them. Thus unfavorably situated, and unprotected, they have borne the last winter [1833-34,] without injury, except only the very tips of the twigs. Mr Breck is persuaded that they are even hardier than the common White mulberry, since some hundred of the latter which stood very near were killed half way down to the ground by this same winter."

An able writer with the signature R. who dates Hingham, Mass. published two articles on the Chinese mulberry, pages 211, 226, of the twelfth volume of the *New England Farmer*. This writer is of opinion, and cites facts to maintain his belief that the Chinese mulberry is more hardy than many of our orchard, or even forest trees, but may be killed when young, if planted in a

rich and moist soil. This writer observes "Authors agree that the proper soils for the mulberry tree are dry, sandy, or stony ; that low, rich and moist lands, never produce nourishing leaves, however vigorous the tree may grow. From all that I have seen I should not hesitate to plant the Chinese mulberry, and should consider it preferable to any other species, if planted on suitable land, and not forced to rapid growth. If doubt on this subject remained, one half of the mulberry orchard might be planted with the Chinese and the other with some other species, or in rows alternately. No measures of good calculation and care should be spared to secure success to a branch of industry that now has the prospect of reward in the course of a few years, of even its millions of dollars, adding to the wealth and virtue of the community, and to our common country's prosperity."

WORKING OXEN.

We copy the following remarks on working oxen from the *Memoirs of the Pennsylvania Agricultural Society*, contained in a letter from the Hon. Levi Lincoln to John Hare Powel, Esq.

The best broken oxen are those which are early trained and accustomed to the yoke with occasional light work. They are often broken as early as one or two years of age, with gentle and patient usage. At this period they are more docile and tractable, and it is thought become more powerful, by being sooner accustomed to each other, and to the application of their strength to the draft. I believe they may be taught to travel in almost any gait ; certain it is, the rate at which oxen differently broken will walk with their load, would seem incredible to a person ignorant of the difference in the mode of their training. To accustom them to a quick pace, they should at first be driven in the yoke while young, without any, or a very light weight, and never heavily loaded, until they have arrived at full strength and maturity.

A great fault with many people is too much indifference to *the construction of the yoke*. Almost any shapeless piece of wood, with holes for the insertion of the bows, is made to answer ; but to the case of the draft, the adaptation of the yoke or bow to the neck of the bullock, and the position of the staple and ring in the yoke, are altogether material. For common use, and particularly for ploughing, I have found that yokes were generally too short. Cattle of the largest size require a yoke from 4½ to 5 feet in length. In short

yokes they are apt to *haul*, as it is termed,—that is, draw *from* each other, and to such a degree, in some instances, as to cross their fore legs, and destroy their power and greatly impede their progress. *I once owned a pair made totally useless by this habit, and afterwards entirely corrected by the application of a yoke 18 inches longer.* A short yoke is necessary only in snow paths, where cattle would otherwise *crowd against* each other, the opposite of *kauling*, but of the same mischievous effect.

In respect to what oxen are made to do in a short time, or as an experiment upon their strength I must refer you to the results of our ploughing matches. With us they are but little used upon the road, except in the transportation of heavy loads for short distances in the same town, or between neighboring towns. One reason why horses are preferred for wagoning on the road, may be that they can be made to travel quicker, and that from the construction of the hoof they are less liable to lameness, than the cloven footed ox, by becoming foot-sore. On the other hand, the patient and steady labor of the ox, finds no substitute in the horse for the service of the farm; and the latter is seldom seen there except in occasional aid of the ox team, or with the light plough between the rows of corn. The value of a yoke of oxen, or a pair of horses, for use in all the business of a farm, admits of no comparison. So decided is the preference for the former, that I do not believe a single farmer can be found in this extensive agricultural county who performs his labor by horses without oxen; while there are *hundreds*, I had almost said *thousands*, who make no other use of horses in husbandry, than to furrow for planting, and plough among their corn for hoeing.

Our oxen are kept in a cheaper and less expensive manner than horses. In the summer they are uniformly grazed in the pastures. In the cold and winter seasons they are put into the barns, and fed upon the *stock* hay, as it is called, that which grows in meadows, and upon the fodder of corn stalks, husks, &c. unless indeed they are more severely worked than usual, when hay of better quality is given them; and in all cases, as the spring advances, their keeping is improved, and with better hay, some grain is added. I speak of the general practice of farmers. There are some who keep their oxen more *generously*, and others more *hardly* than I have mentioned. But with a clean and warm stable, *with daily application of the currycomb and card*, and coarse food, without *severe* labor, the best farmers will at all times exhibit teams of most vigorous and powerful cattle, and their best hay and grain will be saved in their beef and pork, and in the produce of their dairies, for the market.

CULTURE OF THE MULBERRY.

It seems to be a matter well established, that at least the white mulberry will do well in our state. We wish we could affirm as much of the *Morus multicaulis*, but our experience compels us to say that its success in the northern sections of this state, is at least doubtful. The next question to be solved is, can the silk business be rendered profitable? That it can, in families, who have females and children, who will gather the leaves and take care of the worms, we have no manner of doubt. The last Farmer's Register contains an interesting letter upon the subject of silk culture, translated from the French, which the restricted limits of a monthly sheet prevent our publishing in detail, as it does many other articles of interest. It is written by Mr Carrier of Aveyron, into which department the silk business has been recently introduced, to M. Bonafons, director of the royal garden at Turin, giving an account among other things, of the products and profits of his silk business in 1833. This is stated in the following extract.

“I will now show you,” says the writer, “the account of the sale of my silk of 1832: I shall take care to subtract the expense, and you may see the clear profit,

29 1-5 kilograms white silk at 65	
frances the kilogram,	1,830f. 60c.
2 11-12 inferior silk, at 18 francs the	
kilogram,	44 95
	<hr/>
	1,884f. 55c.
Deduct for portage	16 00
	<hr/>
	1,868f. 55c.
Value of the different remains, coming	
from the remains of the filatures	
used at my house,	115 00
	<hr/>
Sum realized,	1,983 55f.
For the expense of manage-	
ment,	171f. 75c.
For the filature reel-	
ing,	263 85
	<hr/>
	436 60
	<hr/>
Profit,	1,548f. 95c.

“To appreciate the advantages of the culture of the mulberry, one must remember that this sum 1,548 francs of profit, (after deducting all expenses,) is the product of leaves furnished by trees which have occupied for eight years, on an average, a piece of ground, rather less than half a hectare, or at most two seterees, a local measure.”

The kilogramme is two pounds and two ounces and four grains, avoirdupois; the franc

is 18½ cents; the c. (centime) one hundredth part of a franc; the half hectare is about 1¼ acres. Hence, the gross product in silk, from one and a quarter acres in mulberries, was 69½ lbs., which sold for \$350.25, or about \$5 the pound, and after paying all expenses, afforded to the proprietors a nett profit in one year, of about \$290.40.

We quote again from M. Carrier's letter: "The proprietor who wishes to occupy a plantation of mulberry trees, supposing he had already at his disposal a quantity equal to those which I stripped last spring, and in the same condition, that is, producing 160 quintals of leaves, at four francs the quintal. Well, this proprietor could have obtained from half a hectare (about 1¼ acres) of ground, with no other expense than that of cultivating the trees, a revenue of 640 francs, or 320f. for each *setere*, composed of 940 square fathoms.

The person who would have bought this quantity of leaves, to devote himself to the raising of silk worms, would have had (as I did) 928 pounds of cocoons and would have sold them at 1f. 20c. a pound according to the course of that time: this sale would have produced

	1392f. 00c.
Deduction of expenses, purchase of about 8 ounces of eggs, at 3 francs the ounce,	24f. 00c.
Expenses of all kinds for the management,	171 75
Price of 160 quintals of leaves, at 4f.	540 00
Rent of the room,	60 00
	895f. 76c.

His part of the profits for 40 days' attendance,

	496 25
The filature who buys the cocoons, obtains a quantity of silk equal to mine and sells it in the same manner,	1,937 85
He draws from the remains,	115 00

Total, 1,983f. 55c.

It is necessary to deduct from this sum at the cost of 928 pounds of cocoons, at 1f. 50c. 1392f. 00c.

Expenses of the filature 263 85

Clear gain of the winder 327f. 70c.

The laborer with a family, takes for his share the remainder of this filature, employs his wife and children to wind the low and different qualities of silk, which are in much request and readily sold. These products can be valued after having received all the suitable work at 16 5fr.

Deduction for the purchase of the first materials 50f.

Hand work, although gained by the family. 30

— 80

Profit, including his work, already paid, 85f.

"A simple recapitulation will make the result better understood than this division of the labor, which division certainly agrees in many cases, with the taste or situation of persons who neither wish, nor are able, to undertake all parts of the business.

The land owner who sells 160 quintals of leaves at 4f receives 640f. 00c.

The person who buys them and manages the raising gains 496 25

The winder who takes charge of the cocoons, winds them and receives 337 70

The laborer who works up the remains does it for 30f, and gains besides 85 00

Sum equal to the total profit which I have made by the union of all these operations, 1,548f 95c.

The calculations which I have just presented, speak loudly enough without my adding the least observation to make the evidence more sure; I will only say, one of the great benefits of this direction of industry is to make a considerable mass of work for all classes of society, and for all ages."

A plantation of mulberry trees may soon be obtained, by procuring the young trees from the nurseries, or by sowing the seed. An ounce of seed will produce from two to three thousand plants. Sow early in May, upon a bed of good earth, well pulverized, in a drill a foot apart; cover with half an inch of fine mould, compress the surface lightly with a hoe, that the soil may better retain moisture and come in contact with the seeds, and if the weather is dry, water occasionally, to aid germination, and to enable the young roots to get firm hold of the earth; to keep the bed free from weeds, and after one or two years prune out the plants in nursery rows, three feet apart, and in two years more they will be fit to set out where they are to remain permanently.

WOOL.—There was imported into the port of Boston, during the year 1834, *three millions five hundred and fifteen thousand pounds of wool*, that cost less than eight cents per pound and free of duty; *one hundred thirty three thousand nine hundred pounds*, costing over eight cents per pound, and dutiable.—*Post*.

A correspondent recommends the rubbing of the limbs of the plum with soft soap, to prevent the black canker. He says he has tried it with success.—*Cultivator*.

THE SILK CULTURE.

The following letter, written by the venerable Judge Spencer, of New York, relates to a subject of growing importance to the people of this country, and one for which the same eminent and enlightened citizen labored, though unsuccessfully, to obtain the fostering aid of the Government when his State had the honor to be represented by him in Congress.—*Argus*.

CULTURE AND MANUFACTURE OF SILK.

Albany, April 7, 1835.

From a long acquaintance, and as I believe, a reciprocal esteem and friendship, I have thought that I could not better employ a leisure hour, than in addressing you on a topic which I regard as of high importance to our fellow citizens. You will not suspect me of insincerity or flattery, when I assure you that I know no man whom I believe to have more enlightened views, or more ardent patriotism than you. Hence the propriety of my selecting you as a correspondent on the interesting subject which I proceed to state.

Since 1830 my attention has been drawn to the consideration of the culture of silk in this country, and particularly in this State. I am perfectly satisfied that no agricultural pursuit will bear any comparison with the culture of silk, as regards profit. I should not want a better income than the clear profits of an orchard of white mulberry trees, of twenty acres at ten years old. The clear nett profits of such an estate would not fall short of from \$3000 to \$5000 annually; and this profit would go on increasing with the growth and the productiveness of the trees.

You have seen a communication made by me to the commissioners appointed by the Governor, to examine into the economy, government, and discipline of the State prisons, which has been published, not, however, extensively. It contains some matter irrelevant to the culture of silk, and omits some things interesting to those who may embark in the enterprise. You must have observed as a statist, that our annual import of silk amounts to the value of \$10,000,000, and will increase with our wealth and population. This amount far exceeds the value of all our bread stuffs exported. This consideration ought to excite us to inquiry, whether such a drain from the resources of the country cannot be prevented, a new source of industry be opened, which shall in a short period supply our own wants, and enable us to become exporters of either raw silk, or silk fabrics.

I consider it as a fact demonstrated, that our soil and climate is genial to the growth of the mulberry tree, and the culture of silk. Trees of this description are already growing and flourish-

ing in various parts of the State, and I presume that the location of this State from Skeneateles to Lake Erie, is peculiarly adapted to the mulberry from the fact that the most delicate fruit trees come to great perfection within that region. Since 1760, the silk worm has been reared in Windham county, Connecticut, which is about the latitude of Albany. The culture of silk has been successfully prosecuted in that county, and it has reached to a large amount. The following is an extract from the Daily Advertiser of the 15th instant: "*American Silk*.—Raw Silk, we learn from the Burlington Free Press, has been produced this year in Mansfield, Connecticut, to the amount of over \$60,000. The county of Windham, Connecticut, produces five tons of silk annually, valued at \$500,000, and if reeled would be worth double that sum." If this be true, and that it is substantially true I fully believe, the question is settled that the soil and climate of this State is genial to the culture of silk. It settles also another question, that it is much the most profitable business that can be undertaken.

We have the testimony of Mr D'Homergue, a man born at Nismes, in France, and brought up, from infancy, to the reeling and manufacture of silk, and who came to this country on the recommendation of the late James Brown, then Minister in Paris, who asserts in his essays, that he was surprised to find the American silk superior in quality, and the quantity yielded by the cocoons, to any he ever saw. But, my dear sir, could you have seen specimens of American silk exhibited in this city a few days since, manufactured by Mr Gay, all doubt would be removed. These specimens were pronounced by the many who saw them, to be equal, if not superior, to any silk which had ever been seen here.

Now, sir, what are the impediments to be overcome, in introducing the culture of silk extensively in this State? And here let me observe that there is no danger of overdoing the business; there will always be a demand in England for all we can raise beyond our own wants; where, from the humidity of the climate, or other causes, the silk worm is not reared.

It is necessary to devote a small space of good and fertile ground, as a nursery in which to sow the seeds. It is computed that one ounce of seed, properly sown, after the ground is thoroughly ploughed, or dug and harrowed, or raked and sown, in drills, at about three feet apart, will give about five thousand young trees. They require to be kept free from weeds and injury from cattle. At two years of age, they are generally fit for placing in an orchard, at the distance of from seven to twelve feet, at right angles—and here the labor of man terminates. All the subsequent culture may be conducted by women and children.

They pluck the leaves, and feed and tend the worms until the cocoons are formed; so that you perceive the culture of silk detracts nothing from agriculture.

The greatest embarrassment, hitherto, has been the extracting or reeling the silk from the cocoons. The reels of France and Italy, and indeed of all parts of the world, receive the thread, which consists of the fibres of several cocoons, according to the requirement of the fabric to be made, in skeins, which must be spooled before it can be twisted. Two of our countrymen, Messrs Gay and Mosely, have invented a reel which receives the thread on spools, and thus the labor and wastage of the old process is avoided. Mr Gay assures me that an ingenious woman can be taught, in a short time, to reel, on his reel, with great perfection. A great advantage of reeling on spools consists in its safe and easy carriage any distance without injury. We have, therefore, surmounted the most difficult process in the whole operation.

These gentlemen have also employed the several machines in use in France and England in the manufacture, so that it will require but a comparatively small capital to establish manufactories of silk in this country.

When we consider how admirably adapted to silk are County Poor-house establishments; how the wants of the poor may be mitigated by inducing them, also, to enter on the culture, by obtaining leaves of the mulberry from their rich neighbors; how the middle classes of society may improve their condition by entering on the culture of silk; I feel, I confess, a strong desire to be able to persuade people to lose no time in laying the foundation of their culture, by immediately setting about it in earnest, and not to let anything hinder them from sowing the mulberry in the manner indicated this spring.

The *morus alba*, or white mulberry, I am satisfied is the most proper for making the best silk; the purple mulberry, which is indigenous to some parts of our country, although it will make silk, yet it is not of as good a quality. The *morus multicaulis*, or Chinese mulberry, has recently been introduced into this country, but it is apprehended that it will not withstand our rigorous winters; and as the common white mulberry will withstand them, and make excellent silk, I should not recommend the propagation of the Chinese.

I forbear saying anything on the mode of rearing the worm. I am satisfied that it does not require the care and pains to rear it in this country, which the precepts of Count Dandolo would imply.

In due time, instructions will be given level

to every capacity. May I not count on your co-operation in this most important subject.

With sincere respect and esteem,

YOURS, A. SPENCER.

To S. M. HOPKINS, Esq. *Genoa, Ontario Co.*

DESTROYING WORMS AND INSECTS WITH SPIRITS OF TURPENTINE.—I was led to try it by observing that certain plants which have naturally a strong odor, are not infested with insects.

Wishing some years ago to raise four young puppies, I perceived them when a few days old to be very languishing, and discovered that they were full of insects or lice, which were preying upon them. It was in vain that they were combed—new generations succeeded, or were renewed from the mother, and the little animals were on the point of perishing. I then took it into my head to sponge both the mother and the pups with warm water, impregnated with spirits of turpentine: and soon found to my agreeable surprise, that every turn of the comb brought out numerous dead insects. The little animals soon acquired vigor, and were saved by a single repetition of the process during the course of the summer.

I soon found occasion to try its effects on some of my trees, which were attacked by a multitude of worms. These I destroyed entirely by putting into a bowl a few handfuls of earth on which I poured a small quantity of the spirits—then adding water, and stirring the whole together, until it had a proper consistence to be rubbed or brushed over the ends of the branches. The insects perished with their germs and the odor remained several days about the tree, repels fresh invaders. A mixture of earth is necessary, because spirits of turpentine swims upon pure water and will not mix with it; and if used in too great quantities might burn the leaves.

The drought which occurred a few years ago, in the canton in which I live, produced a mange in horses and cattle, very extensive and injurious; and those which escaped this infection were filled with lice, from which they were promptly relieved by sponging each with water impregnated with the spirits. This infection caused horses fatigued with labor, to rub themselves so much against their mangers, and the walls of the stables, as to deprive them of much of the rest so necessary to their comfort.

I cannot therefore doubt from the trials that have been made, that much benefit might result from the use of turpentine in clearing fields and trees from insects of different kinds: and that a mixture of ashes with which a portion of this liquid has been incorporated, would remove by its odor, the ticks and other insects which in-

fest turnips. Its odor is more penetrating in the open air than that of sulphur and some other materials used for this purpose.—*Silliman's Jour.*

REARING CALVES.—Extract from a communication from Mr Thomas Midford, Hyde-Park, in the Cultivator :

E. Holbrook, Esq. can now produce from twenty to thirty calves, (raised with little expense,) equal for *age, size, and condition, and fine symmetry,* to any in the country, say pure *Devon*, a cross with *Devon* and *Durham* and *Devon* and *Alderney*, some of which Mr Holbrook intends to send to Albany next fall for sale, when I shall feel honored by a personal introduction by Mr Holbrook.

When the cow has dropped its calf we allow it to suck its mother about 7 or 9 days, always careful to milk the cow during the time the calf is sucking, to draw off the whole of her milk during this period, in order to promote a large soft fine bag during the summer for the dairy use ; at the end of this time the milk comes away freely, of a good color and quality ; the calf is then taken from the cow, and with the finger learned to drink, allowing it about four quarts of skimmed milk night and morning. The milk should stand about 12 hours before it is skimmed, increasing till it is 6 weeks old, from then till 10 weeks old, about 12 quarts per day ; when 10 weeks old diminish the milk for two or three weeks and increase then from 12 to 14 weeks. During this period, hay must be placed between split sticks, to invite them to eat, and which very soon gives them what is termed the cud ; likewise place small troughs within their reach, containing wheat shorts, tumeric, powdered yellow resin, and salt—the tumeric possessing in a moderate degree an aromatic stimulant ; the yellow resin a weak diuretic ; their combination prevents diseases to which calves are subject, swelled legs, yellows, &c.

I must remark, the skimmed milk given to calves should be boiled, and stand till it cools to the temperature of milk from the cow ; it is much better boiled than warm only. Cold milk will cause a calf to purge. If this is the case, put three spoonfuls of rennet into the milk, and it will stop it. If bound, a little pork broth will loosen it. When turned out to pasture they must be provided with an open dry shed, containing hay, &c. to which they will retire for shelter from storms, the powerful rays of the sun, or for comforts, which nature mysteriously dictates to animals. Symmetry being of great importance, to obtain this we do not allow

them to struggle through the first winter, without care or attention ; but provide them with a comfortable dry shed, allowing plenty of good straw for bedding—regularly feeding them with good hay, ruta бага, or small potatoes, with plenty of water at libertum. We allow to ten calves per day, one and a half bushels of ruta бага, or small potatoes, smashed in a pounder immediately before feeding them, in order that they may not enter their stomach in a frozen state, placing as before, within their reach, tumeric, resin, &c. of which they will take no more than nature requires. In the summer we turn them out on rough land ; the winter following they require only ordinary care.

SMUTTY WHEAT.—From unpublished papers of the Kennebec Co. Ag. Society. Communicated by Elijah Wood.

Set up a leach sufficient to contain three or four pails of ley of wood ashes so strong as to support an egg—let that be put into a large kettle and boiled, and while boiling hot, put into it, by means of a cloth for the purpose, as much wheat as the ley will cover—let it remain about one minute—then take it out, spread it and expose it to the air, and so on until you have finished the quantity you wish to sow. I would in all cases recommend washing wheat clean before it is prepared in any other way for sowing. Take care to let the wheat remain longer as the ley grows cold.

MR GOODALE—As the last year's crop of wheat was materially injured by smut and as many farmers are annually injured in the same manner, I have thought fit to point out the several modes by which it can be prevented:—1st, let the seed wheat be washed *clean*, and while wet turn it into a ley, boiling hot, made with two quarts of unslacked or three quarts of slacked lime in hot water, sufficient to cover a bushel—pursue the same rule for a larger or smaller quantity. I have tried this method several times and it never failed of success. The seed ought to lay in the ley at least 24 hours, and if it stands 3 or 4 days no damage will ensue—2d, if seed wheat is steeped in a strong pickle of common salt about four days before it is sowed it is rarely known to smut, and a little chamber-ley added to the pickle will entirely prevent it—3d, seed wheat soaked about four days before it is sown, in a strong ley made of lime and water is rarely known to smut ;—care must be taken that it remains the whole time under the ley. Wheat will bear a strong ley, but care must be taken not to make it excessively strong. Let the farmers pursue any of the above

methods and we shall hear no more complaint of smutty wheat. The whole essence of smut will be destroyed.

SHEPARDIA, OR BUFFALO BERRY.—Mr Medary, Sir,—Permit me to invite the attention of your readers to the *Shepardia* or *Buffalo Berry*.

This interesting tree was discovered by Mr Nuttall, in the vicinity of the Rocky Mountains, in the year 1810, and introduced by him into some of the gardens in the Atlantic States. It is perfectly hardy. In Winship's Nursery at Brighton, in Massachusetts, it flourishes as well as in its native soil and climate, and during the last autumn his trees were literally loaded with fruit, which hangs in racemes of the size and appearance of red currants. The fruit ripens late in the fall. It is sub-acid and palatable in its natural state, and also makes an excellent preserve.

The tree belongs to the Linnæan class "*Diœcia*," and it is said that it is necessary to place both barren and fertile plants in contiguity, in order, successfully, to raise the fruit—of this, however, I have some doubts.

Gentlemen of taste could not expend a few dollars to better advantage in ornamenting their gardens, than by procuring several of these trees. —*Ohio Farmer*.

CHEESE.

Process used by C. Vaughan, Esq., of Hallowell in the making of cheese.

1st. If possible to make cheese at each milking.

To heat a small quantity of the milk so as to bring the milk taken from the cows to the heat of 96 deg., which is the temperature of the milk as it comes from the cow.

3. To use liquid rennet, and to make the cheese of equal quality. The rennet should be prepared the first of the season and kept in small bottles; and, it being of equal strength, it ought to be used by measure, according to the gallons of milk to be turned.

4. When turned to curd, a wooden knife should be passed across the curd in the tub, and when the whey is properly separated it should be placed in a basket in which a strainer is first placed.

5. When strained it should be broken up into small particles, but not hard squeezed, and then salted, and put into the cheese hoop.

6. It is then to be put into the press, and the pressure to be gentle at first, and gradually increased, and turned twice each day: the last pressure may be considerable. In this manner the rich part of the cheese is kept in at first, and at the last, the moisture is pressed out, which in the common mode is dried out, by time.

7. The cheeses after they are taken out, should be put where there is air, and where the flies cannot get to them, and turned and rubbed over twice a day. The outside ought to be rubbed with butter—some use fat pork.—The cheeses treated in this manner have been better fit for use in three months, than common cheeses in nine months.

The press best fitted is a lever or beam press made out of timber 7 or 8 inches square and ten feet long. The end is secured by a strong pin between two upright pieces, and when parallel with the bench it is over, it should be as far apart as to admit the largest cheeses that may be made, with the follower to go under at the heel. The cheese when first put under, should be put as far from the heel as possible and light weighed—every time it is turned it should be put further under, and the fourth time, which is the end of the second day, it should be as near to the heels as possible.

When two cheeses were made in a day, they were put in one press. There is a simple and new kind of press which is said to have the quality of pressing as much or as little as is wanted.

There are several English receipts for preparing rennet. The rennet one season was prepared by soaking the bags in brine, and all the liquor was then mixed and put into small bottles, well corked and kept for use.—*Maine Farmer*.

ASHES AND GYPSUM—LIME.

The following is from a communication in the *Farmers' Register*.

A mixture of drawn ashes with plaster when sown, renders the operation less distressing to the laborers, whose eyes are apt to be incommoded by the flying of it. It also enables them to strew it more equally, regardless of the wind which often interrupts the operation, when sown alone. The quantity used will depend mostly on the quantity at command: for persons having more than will afford an equal portion for the plaster, it is usual to mix half and half, and to sow about a bushel of the compound to the acre, or more, as the farmer may choose, depending on the situation of his land, whether it has been plastered before, or not &c. With the plaster and ashes may also be mixed clover, or other grass seeds, in any proportion desired, when the whole operation can be performed at the same time.

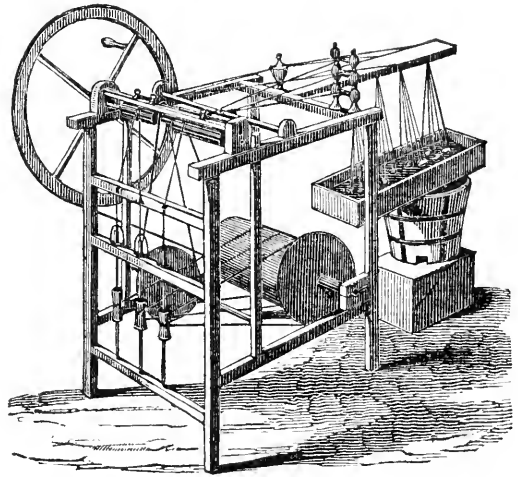
The beneficial effect of lime as a manure is so generally admitted, that to deny its operation in any instance, is hazarding the charge of skepticism; nevertheless, there are cases in which the zealous farmer is sadly disappointed in the result. Whether it be owing to the soil in a limestone region of the country, being already saturated with lime, so as to effervesce strongly with acids, or to some deleterious quality of it, as magnesia, &c., the result is often different from the generally re-

ceived opinion. Lime should therefore be used experimentally: at first in small quantities, to see what effect it has, and increased afterwards as the result indicates it should be. It is unnecessary as an adjunct to putrescent manures, in the first instance, whose softer parts will easily decompose without; but should it not be used as an alternate manuring to succeeding crops, to dissolve the coarse parts of vegetables, which will not easily dissolve of themselves?

BEAUTIFUL MACHINERY.—To those who love to contemplate the results of human ingenuity, as manifested in complicated machinery, a visit to the paper mills of Newton, a few miles from Boston, will afford the highest degree of satisfaction. The rags by the operation of some simple yet well devised combination of wheels, are reduced very rapidly to a sort of paste. This is then spread out by the movement of other machinery unassisted by hands, into a thin broad sheet, which goes onward over rollers, and down between cylinders, heated by steam, &c. till it finally makes its appearance at the extremity of a room about twenty-five feet from where it flowed out of a vat of cold water, in the form of a beautiful ribbon of white dry paper, fit for immediate use. Millions of yards might easily be manufactured into one unbroken piece. For the convenience of the printers however, the paper is cut into any required size, by revolving shears. On the whole, after having carefully examined this wonderful labor-saving machinery, we have come to the conclusion that it must be regarded as one of the most extraordinary productions of the age.—*Scientific Tracts.*

FAT CATTLE.—The ancient town of Deerfield, with its broad and fertile meadows, probably furnishes more heavy cattle for market than almost any other town in the valley of the Connecticut. Three noble pairs, fatted by Mr David Barnard of that place, were weighed in this town on Saturday. The heaviest weighed 4397 lbs.; next 4295; and the lightest 4070, making an aggregate of 12762 lbs.—*Greenfield Gazette.*

LEAVES FOR POTATOES.—Leaves piled in a pen with alternate thin strata of swamp mud, when partially decomposed are found a superior preparation for the Irish potato crop. Put around the roots of fruit trees, this compost has been found to produce a healthy and vigorous growth. Its operation has been much increased in its efficacy by the addition of lime to the mass. The finest Irish potatoes that I have seen produced in a southern clime were produced by this compost.—*Southern Lyceum.*



BROOKS' PATENT SILK SPINNING MACHINE.

Brooks's silk spinning and reeling machine, which was invented by himself, is found to be a very simple and easy operating machine, and yet one of the most perfect that has been invented for the purpose of reeling and twisting silk from the cocoons, and manufacturing it into sewing silk. By the different arrangements of this machine, it will operate upon a single or double thread, as may be required, and prepare it for twisting or weaving. Experience has fully proved that by uniting the filaments of silk as they are drawn from the cocoons, wet in their natural glutinous substance before they are dry, the thread is more firm, smooth and stronger; from the simplicity of the machine, and the very easy way in which it is used, brings it within the comprehension and capacity of any person to use it. Mr Brooks has received a premium for this invention from several societies, and of late, a premium and medal from the Scott's legacy, in Philadelphia.

HINTS TO YOUNG FARMERS.

Consider your calling the most elevated and the most important: but never be above it, nor be afraid of the frock and the apron.

Put off no business which ought and can be done today, until tomorrow.

As soon as the spring opens and the frost is out of the ground, put your fences in order.

Plant no more ground than you can well manure and cultivate to advantage.

Never hire a man to do a piece of work which you can do yourself.

Instead of spending a rainy day at the dram shop, as many do to their ruin, repair whatever wants mending—post your books.

Keep no more stock than you can keep in good order, and that of the best kind.

Never run into debt without a reasonable probability of solving it at the time agreed.

Never carry your notes in your pocket-book, as the desk or trunk is a more appropriate place.

Keep them on file and in order, ready to be found when wanted.

Never buy anything at an auction because the article is going cheap, unless you have a use for it.

Keep a place for your tools—and your tools in order.

Should you be fond of the chase, or the sport with the hook, indulge occasionally, but never to the injury of more important concerns.

By driving your business before you, and not permitting your business to drive you, you will have opportunities to indulge in innocent diversions.

[From the New England Farmer.]

IMPORTANT FACTS TO BE OBSERVED IN REARING STOCK.

MR EDITOR—I have never seen in your work an account of M. Giron's experiments, which have brought forward some new and highly important laws, that regulate the form and sex of animals. A brief notice of them will be useful to all who are interested in improving stock.

M. Giron de Busareingues is an agriculturist in the south of France. His work contains two separate propositions, supported by experiments most numerous and satisfactory. The first is—that in animals of mature age and perfect development, the influence of the sexes on the external form *crosses* in generation, the male being more like the dam, and the female progeny more like the sire. The second is—that in regard to sex itself, the influence is *direct*, the sex of the progeny corresponding with that of the parent which had the strongest constitution, and was in soundest health at the time of union.

The first of these propositions is deduced from an observation of a vast number of cases which cannot be detailed in this brief notice. After remarking then that they are sufficiently strong to convince every one of the correctness of the inference, I will proceed to state a few facts by which his second proposition is supported by M. Giron.

His first remark was, that, in his flocks and studs, those females who were at the most vigorous age, generally produced females whether united to strong or weak subjects: whilst those females that had either not attained, or had passed the prime of life, produced males when united to prime subjects, and females, when united to very old males. To ascertain whether this discovery corresponded with general observation among practical farmers, M. G. made inquiries of the

neighboring agriculturists, who informed him that they had constantly remarked that when the male was young, and the female vigorous, the product of their union was female; while the contrary had as uniformly happened when the conditions were reversed.

In order to test this matter still further, M. G. announced, in 1825, to the agricultural meeting of Severac, that a part of his flock, already marked, would give him, at the next *agnelage*, more females than males. The society nominated two commissioners to ascertain the fact, and it turned out that the proportion of males to females was 1000 to 1472.

At a subsequent meeting M. G. offered to effect the production of a majority of males or females in a given flock, at the choice of the society. Two flocks were immediately furnished by members of the society.

The first flock was divided into two equal parts without reference to age or constitution. The first part being supplied with very young rams gave a product of 30 males to 76 females: the second part being supplied with strong and vigorous rams 4 or 5 years old, gave a product of 55 males to 31 females.

The second flock was also divided into two sections, but with more regard to the other conditions referred to. The first section composed of strong sheep 4 or 5 years old, was sent into rich pasturage and visited by yearling rams; it produced 15 males and 25 females. The second sections, composed of feeble sheep under 4 and over 5 years of age, was placed in dry pasturage, and received two strong rams over 3 years old; the result was 26 males and 14 females. In both experiments it was observed that the lambs produced by the young rams were equal in appearance to those produced by the most vigorous.

The experiments were continued on other classes of animals, birds and insects, with the same results. In the poultry yard, e. g. where the preponderance of maturity and vigor was on the part of the hen, there resulted 725 males and 1000 females: and where the male parent was most vigorous and of ripest age, there resulted 1415 males and 1000 females. Among horses his experiments were particularly clear and conclusive.

It happened to be most profitable to M. G. to have more females than males. With a view to this effect he took care, in the year 1824, to furnish his mares good pasturage, and to give none to foal who had suckled the same year or borne the year previous. "Elles ne furent présentées à l'étalon qu'après qu'elles eurent donné des signes de chaleur." Five mares, thus prepared, produced five females; and of fifteen foals procured from 1824 to 1827 there were 13 females and two males. In accordance with the

same law, it is generally true, I believe, that southern horses (particularly Arabian) produce most female colts when united to the more vigorous males of a northern clime.

So far as M. G. extends his comments to the human race, they are not within the design of this brief communication, which is intended for the practical benefit of farmers. This benefit may be easily and plainly deducible from the above statements so far as they relate to horses and poultry. Permit me to allude to the manner in which advantage may be taken of *both propositions* in rearing *horned cattle*.

Suppose you have a cow that is a remarkable milker, and wish to procure from her a progeny with the same excellence. Now the *common* way is, to send the cow to bull, and if she has a *heifer* calf, it is raised with high expectations, and the owner is invariably disappointed. The reason of this is, as we now see, that the *heifer* calf partakes of the external form and peculiar properties of the *bull* and not of the cow. Proceeding then on the principle developed by M. G. we should do as follows: send the cow whose properties you value to a bull of the ripest age and greatest vigor. The product will be a *bull-calf* having the form and inherent properties of the mother, so far modified in their *developments* as the difference of sex required, but still inherently the same. This bull-calf should be carefully reared, and *his female progeny* will exhibit the form and properties of *his dam*.

So also if you have a bull of huge size, fine form, great strength, and other excellencies, it will be in vain to expect similar form and properties in his immediate male progeny. But his *heifer-calves* will inherit his properties, and transmit them to their male progeny. Thus must we be content to pass through one generation, and we shall probably be well rewarded for our patience and perseverance.

It is scarcely necessary to add that such patience is not necessary in rearing horses. If you wish to procure a colt of form and properties of a fine mare, send her to a vigorous horse, and the result will probably be a *male*, possessing the properties and form of the dam. On the other hand, if you wish a colt resembling a celebrated stud horse, you must send such a mare (either old or very young) as will be most likely to have, from this union, a female foal, for it is in this crossing of sexes we get the external form and properties we desire.

In conclusion allow me to express the opinion that the incredulity that exists among farmers about the possibility of propagating the qualities of animals, may arise from their want of knowledge of these laws. "I don't believe in your breeds of horses," says Farmer A. "There's my

neighbor B. has as fine an animal as ever stepped, that came of his old black mare that's not worth a pin." Now if Farmer A. had known as much as I wish to teach him by this paper, the fact he stated would not have led him to his skeptical conclusion. If the fine young animal was a female, it matters little what were the qualities of the "old black mare," the foal partook of the form and qualities of the sire, and so on.

Yours, &c.

B. C.

[By the Editor.]

The foregoing is a very important paper, and the subject to which it relates is of great interest. We hope it will meet that attention—that theoretical and experimental investigation from farmers and breeders of stocks which a regard to a great improvement in a most essential branch of husbandry should induce them to bestow.

The largest hog that we have ever seen is now in possession of Mr P. Mehan. It measures from the snout to the extremity of the tail, eleven feet, is five feet in height, and weighs 232 pounds. It is remarkably well shaped, and the flesh is of extraordinary firmness, considering its size. It appears to be in perfect health, and may yet attain a much larger growth, being not quite three years old.—*Dublin Journal*.

PORTABLE RAILWAY.—A novel machine was a few days ago exhibited in the Kensington and Chapham roads. It consisted of a sort of carriage wheel which carries a rail road for itself, upon which the carriage travels with great facility and quickness. It was composed of a jointed square instead of a circle, and has four rollers, not touching the road, and for feet which alternately come to the ground, producing a kind of walking and escaping obstacles. We understand that it is the invention of L. Gompertz, Esq.—*Rail Road Jour.*

It was stated in a discourse recently delivered before the members of the American Institute, that there was annually consumed in the United States, more silk, than all the wheat, corn, rye, oats, flaxseed, biscuit, potatoes, and hops, which are exported will pay for, by nearly \$3,000,000! —*Bost. Trans.*

Being to advise or reprehend any one, consider whether it ought to be in public or in private, presently or at some other time, also in what terms to do it: and in reproving, show no signs of choler, do it with sweetness or mildness.

When a man does all he can, though it succeeds not well, blame not him that did it.

BOOK FARMING.

We have been told of the following facts, and have only to regret that the like to them are not of more frequent occurrence. A number of intelligent farmers residing in a neighborhood, somewhere, we believe, in Dutchess county, concluded to form a farmer's association—to make a common stock of their knowledge and observation—believing that knowledge, like money would be productive in proportion to the capital. It was known that A. raised the best horses, and got the best price for them; that B. was far more successful in his wheat and corn crops than his neighbors; that C. reared the finest neat cattle, and kept the best cows and oxen; that D. excelled in sheep husbandry; and, in short, that some individual excelled the rest in a particular branch of husbandry. Each possessed not only some excellence, but some glaring defect in his management. Thus the farm stock of one were sickly, and many died, because the owner did not know how to manage them; another's farm had become dreadfully impoverished, from neglecting the manure, and from close cropping, while the farm of a third was neither fit for plough land, or for sweet grass, on account of the water which everywhere saturated the soil, and rendered it poachy, cold and sour. Unlike too many now-a-days, each of these men was conscious he could learn from his neighbor's practice, which would enable him to manage his farm with more profit—and that he could teach his neighbors something in return. These expectations were amply realized; but as the members lived somewhat remote, it struck them that it would save much time, and be a more sure way of rendering the improvements of all available to each, if they were to write down their practice in the particular branch in which they respectively excelled, and the principles, or science, upon which that practice was based. This was accordingly done: and for their mutual convenience, as well as for the benefit of others, the whole was printed and these men were afterwards denominated, by some of their envious neighbors, *book farmers*, because they took their instructions from a *printed book*. This did not disturb them; for they got from their book the secrets by which the others had excelled in their particular department, and each profited by the good management of his neighbors. The consequence was, that all gained by the interchange. The defects of all were speedily remedied, and in a few years prosperity crowned their labors; and they now exhibit, we are told, the best models of profitable farming anywhere to be found in the land; and they enjoy the felicity of reflecting, that

while they have greatly benefited themselves and their families, they have by their example and instruction, done much good to others. They have afforded a fair illustration of the advantages of book farming, when combined with intelligent practice.

Were this example extended to the farming community of our country, how greatly the work of improvement would advance, and the comforts of the human family be multiplied: were each to contribute his mite of practical knowledge in the branch in which he most excels, what a treasure of information would be collected, to guide us in our practice, and to stimulate us to habits of industry. And do we not already possess, in a considerable degree, these precious advantages? What are our agricultural journals, but a record of instructions, by the best farmers of our own and every other country—a detail of the methods by which they have succeeded—have excelled—in the various departments of husbandry? There is not a man in the community who may not profit, in some degree, by the teachings of these journals. The self-wise are ever the most profoundly ignorant; for as we advance in knowledge, we become more and more humbled by the consciousness of our comparative ignorance.

We beg that the readers of the *Cultivator* will take this matter into serious consideration, and remember, that an obligation rests upon them individually, to requite the favors which they are monthly receiving from others, by communicating whatever of their practice that may promise to be beneficial to their brother farmers,—*Cultivator*.

PRUNING ORCHARDS.

In a conversation the other day with our friend Paine Wingate, who has much experience in orcharding, he observed that much damage was annually done to the orchards in Maine by the barbarous manner in which they are too often pruned, by hacking them with an axe and leaving a mangled stub projecting above the limb. The consequence is, that the wound never heals—water gets in, the wood decays—and a cavity is made which finally destroys the branch entirely, or brings it into an unhealthy state and makes an unsightly appearance. A fine saw should always be used, and even then the bark about the stump should be pared away in a bevel form, for the friction of the saw will start the bark a little way down and unless it be cut off, the water will get in and prevent its healing so fast as it will, if the started bark should be cut off. There is also not sufficient attention paid to the thinning out the central portions or branches of the tree so as to let the sun and air in among the apples, which will otherwise be less likely to have the true flavor that arises from

being thoroughly ripened by free access to the sun and air. These suggestions are well worth the consideration of orchardists. We have seen too many apparently young orchards suffering by the *scalping* and *tomahawking* which they have undergone. Great care should be taken to make as little wound as possible, while clearing away the superfluous branches. The business of orcharding will undoubtedly hereafter be pursued not only to a greater extent than it has hitherto done, notwithstanding many have very foolishly demolished trees that have been reared with great care, anxiety and hope. There seemed to be an idea prevalent that the legitimate use of apples, was for making cider only, and when the call for that subsided, many considered them as useless incumbrances, and of course down with them. But the fact that they are more valuable for feeding cattle, sheep and swine, is beginning to be more known and more practised, and we doubt not that the apple tree will again become a favorite with those who have destroyed it.—*Maine Farmer*.

LANGUAGE OF ANIMALS.—The acuteness of the sheep's ear surpasses all things in nature that I know of. A ewe will distinguish her own lamb's bleat, among a thousand, all bleating at the same time, and making a noise a thousand times louder than the singing of psalms at a Cameronian sacrament in the fields where thousands are congregated—and that is no joke either. Besides, the distinguishment of voice is perfectly reciprocal between the ewe and lamb, who, amid the deafening sound, run to meet one another. There are few things have ever amused me more than a sheep shearing, and then the sport continues the whole day. We put the flock into the fold, set out all the lambs to the hill, and then send the ewes to them as they are shorn. The moment that a lamb hears its dam's voice, it rushes from the crowd to meet her, but instead of finding the rough well clad, comfortable mamma, which it left an hour or a few hours ago, it meets a poor, naked, shrivelling—a most deplorable looking creature. It wheels about, and uttering a loud, tremulous bleat of perfect despair, flies from the frightful vision. The mother's voice arrests its flight—it returns—flies, and returns again, generally for ten or a dozen times, before the reconciliation is fairly made up.—*James Hogg*.

A COCOONERY.—Mr Samuel Whitmarsh has erected an edifice of two hundred feet in length east of his house, on Fort Hill, as a Silk House, and Cocoonery. The plan of it is original, and promises the best results. The worms, while feeding, are now laid out upon boards and ben-

ches, by those who rear them, covered with mulberry leaves, and when for health and cleanliness they are required to be moved, it all must be done separately.

Mr Whitmarsh's building is intersected by alleys, and on each side tiers of sliding frames or drawers rise from the floor upward. These frames are covered with lattice work of twine. The top one is laid over with leaves upon which the worms feed. The second frame, about an inch and a half below, is covered with strong paper, or coarse cotton. All the stems of the leaves, or offal from the worm, fall from the lattice work above upon this draw, and when the usual time for cleaning them comes, instead of lifting each separately, it is only requisite to remove the lower draw, and the cleansing is accomplished.

The leaf of the Chinese Mulberry, which Mr W. will use, is so tender that the worm will devour it all. Sometimes they will fall from the lattice work above, upon the paper draw below. In that case, when a new supply of leaves is laid on above, the worms at once ascend, as the distance is not too great between them, to prevent their reaching above. This is a great and important change introduced into the method of feeding and cleanliness, saving time and promoting the health of the worms.

Another great improvement to be introduced by Mr Whitmarsh, is the aid given the worms in winding their cocoons. Now when the worms have terminated their feeding, easily known by their movements, branches of trees and bushes are laid over or suspended above them, and among which the process of winding is carried on. Consequently they are much entangled, lost to sight, a great deal of labor and silk lost in securing themselves, and altogether an awkward method of separating the cocoons for use from the bushes.

He proposes, when the worms are ready to wind, to transfer them to upright frames, with twine lattice work, standing about an inch and a half apart.

The worms will reach over from one frame to the other, fasten themselves at each extremity and then in a small compass envelope themselves in their cocoons. Every thing is then clean and compact, and after they have finished winding, the frames in pairs can be put away compactly, and when wanted for use, the cocoons are easily taken off. The building is well contrived for ventilation and the reeling by steam power will be carried on in the same edifice. He intends to feed a million of worms this summer and reel four or five hundred pounds of silk.—*Northampton Courier*.

SPRING.

Now the golden morn aloft
 Waves her dew bespangled wing
 With vermeil cheeks, and whisper soft,
 She woos the tardy spring;
 Till April starts and calls around
 The sleeping fragrance from the ground;
 And lightly o'er the living scene,
 Scatters his freshest, tenderest green.

New born flocks in rustic dance,
 Frisking ply their feeble feet;
 Forgetful of their wintery trance
 The birds his presence greets.
 But chief the sky lark warbles high
 His trembling thrilling ecstasy;
 And lessening from the dazzled sight,
 Melts into air and liquid light.

Rise, my soul, on wings of fire,
 Rise the rapturous choir among;
 Hark! 'tis nature strikes the lyre,
 And leads the general song;
 Warm let the lyric transport flow,
 Warm as the ray that bids it glow.
 And animates the vernal grove
 With health and harmony and love,

Yesterday the sullen year
 Saw the snowy whirlwind fly;
 Mute was the music of the air,
 The herd stood drooping by;
 Their raptures now that wildly flow;
 No yesterday, no morrow know;
 'Tis man alone that joy deseries,
 With forward and reverted eyes.

See the wretch that long has tost
 On the thorny bed of pain,
 At length repair his vigor lost,
 And breathe, and walk again;
 The meanest floweret of the vale,
 The simplest note that swells the gale;
 The common sun, the air, the skies,
 To him are opening paradise.

GOOD RULES.

Every action in company ought to be with some sign of respect to those present.

In the presence of others sing not to yourself with a humming noise, nor drum with your fingers or feet.

Sleep not when others speak, sit not when others stand, speak not when you should hold your peace, and walk not when others stop.

Be no flatterer, neither play with any one that delights not to be played with.

Read no letters, book or papers in company, but when there is a necessity for doing it, you must ask leave. Come not near the books nor writings of

any one so as to read them unasked. Also, look not nigh when another one is writing a letter.

Let your countenance be pleasant, but in serious matters somewhat grave.

Show not yourself glad at the misfortunes of another, though he were your enemy.

Undertake not to teach your equal an art he himself professes; it savors of arrogance.

They that are in dignity or office have, to all places, precedence; but whilst they are young, they ought to respect those that are their equals in birth or in other qualities, though they have no public charge.

It is good manners to prefer them to whom we speak before ourselves, especially if they be above us, with whom, in no sort, we ought begin.

Take all admonitions thankfully, in whatsoever manner given; but afterwards, not being culpable, take a time or place convenient to let him know it that gave them.

Mock not, nor jest at anything of importance; break no jests that are sharp biting and if you deliver anything witty and pleasant, abstain from laughing thereat yourself.

Wherein you reprove another, be unblamable yourself, for example is more prevalent than precept.

Use no reproachful language against one, neither curses nor reviling.—WASHINGTON.

VALUABLE WORK ON AGRICULTURE.

This Day published by GEO. C. BARRETT, THE COMPLETE FARMER AND RURAL ECONOMIST. By T. G. FESSENDEN. Second edition, revised and improved by the Author, with considerable additions.

The first edition was published last season, and the sale was rapid beyond precedent for a work of this kind. The present improved and stereotyped impression has still higher recommendations to public patronage, and cannot fail to prove still more useful to the community of cultivators.

This work has met with decided and universal approbation from the most competent judges. Among the written and printed recommendatory notices are those of the Hon. JOHN LOWELL and Rev. HENRY COLMAN. The Editors of the New York Farmer, the New England Magazine, the Maine Farmer, Loudon's Gardener's Magazine, &c. have given favorable critiques of the Complete Farmer. We shall subjoin Mr Lowell's notice, and propose in some future number to publish those of the other gentlemen who have honored the work with their approbation.

"Roxbury, April 6, 1835.

"Having perused with attention the Complete Farmer and Rural Economist, by Thomas G. Fessenden, Esq. in its first edition, and having recently revised it at his request, preparatory to a second edition, I am of opinion that it is a valuable compendium and useful work. Those who know that the science of Agriculture is so extensive as to fill twelve quarto volumes in the celebrated French work of the Abbe Rozier, and a space not less in English works, will not expect in such an abridgement full details in any one branch of that extensive and varied art. But I know of no abridged work in the French or English languages which conveys more instruction in so small a compass than this work of Mr Fessenden.

m6

JOHN LOWELL."

ASPARAGUS ROOTS.

FINE, large, three years old Roots of the Dutch Asparagus for sale by GEO. C. BARRETT. april 15.

GRAPE VINES & PLUM TREES.

ISABELLA and Catawba of extra size and Red and White Chasselas Grapes, and of the foreign varieties.

ALSO—Plum trees of vigorous growth and of the most approved kinds, for sale by SAMUEL POND, Cambridgeport Orders may be left at the N. E. Farmer Office. march 13.

Newburyport Agricultural Warehouse and SEED STORE.

THE subscriber, Agent for the New England Seed Store, has received a full assortment of *Garden and Flower Seeds*, raised and put up expressly for the New England Seed Establishment, in papers with their labels on them, with directions for cultivating, &c. warranted of the growth of 1834.

Also received from the Agricultural Warehouse, Boston, and Manufacturers, a general assortment of Ploughs, Cultivators, Hay Cutters, Hay Knives, Hoes, Garden Hoes, Manure Forks, Shovels, Spades, Churns, &c. The above establishment was opened by the subscriber last Spring, and arrangements made to be constantly supplied with all kinds of Garden and Farming Tools, including those of the Dairy, which he offers at manufacturers' prices. WM. HILL.

No. 3, South Row, Market Square. 3t*

Newburyport, April 1.

PEAR STOCKS, &c.

A quantity of good sized Pear Stocks; Apple Stocks; White and Pink Flowering Horse Chestnuts, and Honey Locusts, for sale on very reasonable terms. Apply to April 29. GEO. C. BARRETT.

FLOWER SEEDS.

An extensive collection of splendid Annual, Biennial and Perennial Flower Seeds, comprising some new and choice varieties, for sale by GEO. C. BARRETT. april 22.

ST HELENA POTATOES.

200 bushels of this very superior Potato for sale at Brimmer & Inches' store on the T wharf, at 80 cents per bushel by MOSES HEALEY. april 23

FARM FOR SALE OR EXCHANGE.

An excellent Farm containing 70 acres, situated in Marlborough, Mass., with a house and barn thereon, for sale, or would be exchanged for property in the city of Boston. For terms and particulars inquire of G. C. BARRETT at this office, or N. B. PROCTOR, Esq. of said Marlborough. 6m.

AGENCY IN CONCORD, N. H.

WILLIAM KENT has accepted the agency of the New England Seed Establishment, and has received a full assortment of GARDEN and FLOWER SEEDS neatly papered up, with directions for cultivating, &c. on each paper. These Seeds are warranted, being raised in gardens connected with the above establishment.

Concord, N. H. March 24, 1835.

SILVER FIRS, &c.

WILLIAM MANN of Bangor, Me. will execute at short notice orders for Silver Firs, Evergreens, &c. well packed and in good order. april 8.

TREES FOR SALE,

AT W. BUCKMINSTER'S Nursery, Framingham:—Apple trees, Cherry trees, Pear trees, Peach trees, Rock maple and Larch trees.

Also, Isabella Grape Vines, all of the first quality, at customary prices. * march 4.

4000 APPLE TREES

For sale by the subscriber, at Fresh Pond, in Cambridge, consisting of Baldwins, Russetts, Porters, Rivers, Siberian Crabs, and Blue Pearmains. The trees are four years from the bud and are probably the best in Massachusetts.

JONAS WYETH.

Cambridge, April 8.

NEW AMERICAN ORCHARDIST.

GEORGE C. BARRETT and RUSSELL, ODIORNE & Co. Boston, have now in press, and will publish in a few weeks, the second edition, greatly enlarged and improved, of the NEW AMERICAN ORCHARDIST, or an account of the most valuable fruits of all climates, adapted to cultivation in the United States, with their history, uses, modes of culture, management &c. Also, useful vegetables, ornamental forest trees, shrubs, and flowers, silk, bees, &c. By WILLIAM KENRICK.

KALMIAS, AZALEAS, &c.

THE subscriber will furnish *Kalmia latifolia*s and *Azalea nudiflora*s in bundles of 25 each, packed in moss, at the rate of \$12.50 per hundred, delivered at GEO. C. BARRETT'S Seed Store, who is agent, at short notice. Also, a great variety of indigenous and exotic shrubs, and herbaceous plants Lancaster Garden, March 27. JOS. BRECK.

FOR SALE OR TO LET,

A valuable Farm situated in Medford, about five miles from this city, well calculated for a milk, vegetable and fruit farm, or would be let on shares, provided a temperate man should want the same.

For further particulars apply at this office. m 11

GROUND PLASTER,

From the Lube Manufacturing Co. in casks of 500 lbs. each, constantly on hand and for sale by GEO. CLARK & CO. No. 9, T Wharf. april 8.

GRIST MILL MACHINERY FOR SALE.

A grist mill, with gearing complete, built in the best manner, and has been running but a very short time—stones 5 feet 6 inches diameter—runner 19 inches thick—removed for the accommodation of other machinery.

One runner, 5 feet diameter, 17 inches thick.

Two driving wheels, partly worn, with pinions and spindles.

A pair of mill stones, superior grit, 4 feet 3 inches diameter, runner 13 inches thick, with the requisite iron work.

The above will be sold low, if immediate application is made at the counting room of the Daily Advertiser & Patriot. march 11.

PLEASANT AND VALUABLE RESIDENCE FOR SALE.

SITUATED in Dorchester on the Brushhill turnpike, two miles from Roxbury street, containing 16 acres of excellent land with a mansion house, farm house, two barns and outhouses thereon, having a garden of one acre containing valuable fruits &c. The situation is unrivalled, commanding a most extensive prospect of the harbor and of the country back.

The houses are in complete repair and the whole farm under a good state of cultivation, with a good orchard of excellent fruit. For terms and particulars inquire of Messrs LOT WHEELRIGHT & SON, 46 Central Wharf. GEORGE C. BARRETT at this office, or JOSIAH WILSON on the premises.

IMPROVED SHORT HORNED STOCK.

To be sold, a number of fine animals, from the breed of Denton, Admiral, Wye Comet, &c. Apply to A. GREENWOOD, on the Welles farm, near Doctor Codman's Meeting-House, in Dorchester. feb. 25.

WANTS A SITUATION AS GARDENER,

A single man, who is well acquainted with his business in all its branches, and who can procure good recommendations from his last employers. Enquire at G. C. Barrett's Agricultural Warehouse, Boston. m6.

SILK COCOONS WANTED.

The subscriber, encouraged by the late act of the Legislature to reel and throw American Silk, wishes to purchase at the Agricultural Warehouse in Boston, Silk Cocoons, and will pay \$3 per bushel for the best, and in proportion for poorer ones. [m6] G. C. BARRETT.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES,	barrel	3 00	3 50
BEANS, white,	bushel	2 37	2 60
BEEF, mess, (new)	barrel	12 00	12 50
Cargo, No. 1.	"	10 00	10 50
prime,	"	3 00	3 50
BEEFWAX, (American)	pound	20	24
BUTTER inspected, No. 1,	"	15	17
CHEESE, new milk,	"	8	9
skimmed milk,	"	3½	6
FEATHERS, northern, geese,	"	40	45
southern, geese,	"	35	39
FLAX, American,	"	10	11
FLAXSEED,	bushel	1 25	1 30
FLOUR, Genesee, cash	barrel	5 87	6 12
Baltimore, Howard street,	"	5 75	5 87
Baltimore, wharf,	"	5 25	5 37
Alexandria,	"	5 56	5 62
GRAIN, Corn, northern yellow	bushel	83	85
southern yellow	"	77	80
white,	"	72	73
Rye, northern,	"	85	90
Barley,	"	63	65
Oats, northern, (prime)	"	45	46
HAY, best English,	ton	18 00	19 50
eastern screwed,	"	12 50	13 00
hard pressed,	"	14 00	15 00
HONEY,	gallon	37	42
HOPS, 1st quality	pound	12	13
2d quality	"	"	"
LARD, Boston, 1st sort,	"	9½	10
southern, 1st sort,	"	8	9
LEATHER, slaughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	16	18
do. upper,	"	13	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	1 00	1 25
PORK, Mass. inspect. extra clear,	barrel	20 00	21 00
Navy, mess,	"	16 00	17 00
bone, middlings,	"	8	8 50
SEEDS, Herd's Grass,	bushel	2 25	2 50
Red Top,	"	77	1 00
Red Clover, northern,	pound	8	9
White Dutch Honeysuckle,	"	25	30
TALLOW, tried,	ewt.	7 50	8 00
WOOL, prime, or Saxony Fleeces,	pound	70	85
American, full blood, washed,	"	60	65
do. 3-4ths do.	"	55	60
do. 1-2 do.	"	45	50
do. 1-4 and common	"	40	45
Native washed	"	38	60
Northern pulled, { Pulled superfine,	"	60	65
{ 1st Lambs,	"	45	50
{ 2d do.	"	30	33
{ 3d do.	"	25	30
{ 1st Spinning,	"	35	40
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

	RETAIL PRICES.		
HAMS, northern,	pound	10	12
southern,	"	7½	8
PORK, whole hogs,	"	6	7
POULTRY,	"	10	14
BUTTER, (tub)	"	18	20
lump	"	"	"
EGGS,	dozen	14	16
COTATOES,	bushel	45	50
PIDER,	barrel	2 75	3 00

GRAPE VINES.

A few hundred prime Isabella and Catawba Grape Vines for sale by JONATHAN BOYCE, Market Street, Lynn, march 25. 4t

BRIGHTON MARKET,—MONDAY, MAY 4, 1834.

[Reported for the Daily Advertiser & Patriot.]

At market 172 Beef Cattle, 15 pairs Working Oxen, 10 Cows and Calves, 290 Sheep, and 150 Swine.

PRICES.—Beef Cattle—Sales quick, and last week's prices fully supported; we quote a number very fine at \$7; prime at 40s 6d; good at 36s a 39s; thin at 30s a 34s 6d.

Working Oxen—Sales were noticed at \$75, 80, 88, and 100.

Cows and Calves—Sales were noticed at \$23, 27, 50, 28, and 35.

Sheep—We noticed sales at 28s 6d, 36s, and 43s 6d.

Swine—One lot was taken at 5½ for sows and 6½ for barrows; at retail, those over 80, 6 and 7, under 80, 7 and 8.

BRIGHTON MARKET.—MONDAY, MAY 11, 1835.

At Market 530 Beef Cattle, 14 pairs Working Oxen, 40 Cows and Calves, 725 Sheep, and 450 Swine. About 140 Beef Cattle and 400 Sheep unsold.

PRICES.—Beef Cattle—We do not at this season of the year, recollect ever seeing so large a proportion of ordinary cattle at market at one time, some of which were exceedingly inferior. A few pair purchased by "lump," and may have cost above our highest quotations. We quote prime at 37s 6 a 40s 6, good 34s 6 a 37s 6, thin at 30 a 33s.

Working Oxen—Sales at \$70, 78, 85, 95, 100 and 105.

Cows and Calves—Sales at \$21, 22, 24, 25, 27, 30 and 33.

Sheep—Dull; one lot sheared were taken at 18s; also lots not sheared at 26s 3d, 33s, and 34s 6.

Swine—Several lots were taken to peddle at 5¼ for sows and 6¼ for barrows, at retail, under 80, 7 and 8, over 80, 5½ a 6 and 6½ a 7.

NANKIN & CANTON STRAW CARPETING.

ELIAS STONE BREWER, No. 414 Washington street, has constantly on hand a large assortment of Straw Carpeting, of various qualities and widths, among which are—

- 2500 yards superfine Nankin, 6-4
- 2000 do. do. do. 5-4
- 3500 do. Canton do. 6-4
- 4500 do. do. do. 5-4

1 case German Table Mats, a new and superfine article. April 1.

FRESH WHITE MULBERRY SEED.

Just received at the New England Seed Store, 51 & 52 North Market street,

A quantity of fresh and genuine White Mulberry-seed, from one of the greatest Mulberry Orchards in Connecticut, warranted new and good, directions accompanying each package.

Dec. 13, 1834. GEO. C. BARRETT.

GREEN HOUSE GLASS,

Of superior thickness with every quality of Window Glass for sale by LORING & KUPFER, No. 10 Merchants' Row. Jan. 23. 2mis.

TO NURSERYMEN.

The subscriber wishes to relinquish the charge of his extensive Nurseries to a tenant, or share it with a competent associate. A green house is contemplated as an appendage to the establishment. O. FISKE.

Worcester, March 16, 1835.

TO LET,

On a lease of five or more years, as may be agreed upon, a Farm, containing one hundred acres of Land, suitable for a Dairy, with dwelling house, barn, and all other buildings requisite, a good orchard, and well watered. The situation is two miles from the city of New Haven, in the Parish of Hampden For further particulars address (post paid) to No. 265, box post office, New Haven. Feb. 25.

FESSENDEN'S SILK MANUAL

AND
PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I.

BOSTON, JUNE, 1835.

NO. 2

PUBLISHED MONTHLY BY

GEORGE C. BARRETT,

51 & 52 North Market St., at the N. E. Farmer Office.

T. G. FESSENDEN—EDITOR.

Fifty cents per year—twelve copies for five dollars—always in advance.

Postmasters and Agents allowed 10 per cent on all subscribers.

BOSTON, JUNE, 1835.

CHANGE OF TITLE.

Our readers will perceive that we have made a slight alteration in the head of our paper, by transposing the principal words in the title. We have had a great accession of respectable names to our subscription list, and four fifths take it for the information which they anticipate receiving from the paper relative to *Silk Culture*. We, therefore, at the suggestion of some friends, and to meet the views of much the largest class of our readers, have concluded to publish this paper in future with the appellation, FESSENDEN'S SILK MANUAL, AND PRACTICAL FARMER, &c., and under this name, we shall, in future, fill our cheap compendium with as much useful information as we can comprise within the compass of its pages.

MASSACHUSETTS SILK COMPANY.—There has recently been formed, a Company for the Manufacture of Silk, with the above title. We understand it is their intention to establish a large plantation of Mulberry Trees, and carry on the whole business from the growing of the tree to the manufactured fabrics. We hail this as a good beginning of a business,

which it is our opinion, will eventually be equal in importance to the country, to the culture and manufacture of Cotton.

FACTS AND OBSERVATIONS RELATIVE TO THE CULTURE OF SILK.

VARIETIES OF SILKWORMS.—In our last we made some remarks relative to the best and most profitable food for Silk Worms. We will now speak of the *varieties* of these insects, a consideration of scarcely less importance than that of the provision necessary for their support. If the Farmer finds his account in rearing no animals which are not of a good *breed* as well as good samples of their kind, the Silk Culturist will no doubt, be well rewarded by his attention to the different varieties and selection of the best races of the insects on whose labors and qualities all his hopes of success must be founded.

The Hon. Richard Rush, while Secretary of the Treasury, prepared and transmitted to the Speaker of the House of Representatives, a letter on the growth and Manufacture of Silk, &c. which is a very valuable, as well as able and elaborate document. In this the writer treats

OF SMALL WORMS OF THREE CASTS, OR MOULTINGS.

The eggs of these worms may be found in several parts of Lombardy. The worms and cocoons are two-fifths smaller than the common sort. The worms consume, to form a pound of cocoons, nearly as much leaves as the large species; and, although smaller, when they have reached their full growth, they devour more fragments and shoots of leaves than the common sort. Their cocoons are composed of finer and more beautiful silk than the common cocoon; they are also better constructed, and to this is owing the

greater quantity of silk, which at equal weights, is drawn from those cocoons, than from common cocoons. This variety, in the opinion of Dandolo, [an experienced silk culturist] should be infinitely more cultivated than it hitherto has been; for

1. These silk worms require four days less of care than the common silk worms.

2. They afford a saving of time, labor and money.

3. They are not so much exposed to accidents, their life being shorter.

Some imagine the species to be delicate, but they appeared to Dandolo to be strong and vigorous. Six hundred cocoons weigh a pound and a half.

OF THE WORMS THAT PRODUCE WHITE SILK.

"I have raised," says Dandolo, "a large quantity of these, and found them, in all respects, equal to the common silk worms of four casts. If I reared silk worms for the purpose of spinning the silk myself, I would cultivate only the silk worm of three casts, and those that produce white silk, as preferable to all others; and every year would choose the very whitest cocoons, to prevent the degeneration of the species."

This species, says Mr Rush, was introduced into France about fortyfive years since, from China, but was not much cultivated until about seventeen years past. It is now highly prized by the manufacturers.

In Windham county, Connecticut, there is also a small, pale, white worm, which eats but twenty days, and produces fine white silk, though in less quantity than either the common large pale white, or the dark colored worm: but it has the good quality of retaining its clean white color, and does not turn yellow by washing, or by exposure to the sun and air. These worms produce also two crops. It is highly probable that these white worms are of the same species as that last mentioned.

The dark drab colored worms, which are very common in the United States, and called "black," live longer, and make more silk than the large white worms.

SILKWORMS OF EIGHT CROPS.

At the silk establishment of the British East India Company at Jungpore, Bengal, Lord Valencia,

besides the common annual silk worm which gave but one crop, found two others; the one commonly reared, and supposed indigenous, is called Dacey, producing eight harvests. Another and worst, the China, or Madrasia, also yields eight times a year. This last may be the kind mentioned by Arthur Young, who says, he "obtained a silk worm from China, which he reared, and in twentyfive days had the cocoons in his basins, and by the twentieth or thirtyfirst days, a new progeny feeding in his trays." He justly remarks, that "they would be a mine to whoever would cultivate them." The American who would introduce any of the best of these silk worms into the United States would render an essential service to his country. If circumstances, however, should prevent the importation of the species before mentioned, it is presumed there will be no difficulty in procuring, from the Isle of France, the eggs of those which came from Bengal in the year 1815, and were reared under the direction of M. Chazel, and which breed three times a year; or the variety of Madras, which, according to Dr Anderson, finish their course in forty days, viz: six days in eggs, twentytwo a worm, eleven in the cocoon, and one a moth.

[To be continued.]

[From the New England Farmer.]

SILK COMPANIES.

The Editor of the Cultivator, I think, wrongly estimates the effects of associations for carrying on the silk business. He says, "We are afraid that large establishments with corporate powers, will tend rather to retard than to encourage this branch of rural labor, except in their immediate neighborhood, where it can be made subservient to their cupidity."

These remarks might be applicable to some branches of business, but are dangerous and discouraging to the success of the silk manufacture in this country. I believe that "associated capitalists" cannot invest their money to better account, for the benefit of the community than to erect manufactories of silk, and establish plantations of mulberry trees in order to supply those manufactories. The branches of domestic industry, which are preparatory and indispensable to the successful prosecution of the concerns of large silk manufactories, will give support to thousands of children, infirm persons, &c., who would otherwise be without employment. The field is large enough for individuals to labor in without interfering with, or being incommoded by those who work in companies. There

cannot, for a century, be such competition as to reduce the price or lessen the demand for silk. On the contrary large establishments will encourage and reward those who do no more than furnish mulberry leaves for silk worms, or cocoons fit for reeling, &c. which may be done in the family of every farmer. In our humble opinion Congress cannot apply money to better purpose than by granting a bounty upon every 100 pounds of silk reeled in the United States. I am particularly opposed to such companies as would have a tendency to introduce monopolies, or discourage or destroy individual industry or enterprise, but say "go ahead" to those men of wealth and enterprise, who unite their talents and influence, and raise a joint fund for the purpose of creating such a great staple commodity as may be done by establishing, and rendering common in the United States, the silk business in all its branches.

PUBLIC GOOD.

By the Editor.

We are and hope always shall be on the side of "PUBLIC GOOD." There is a great advantage in the union as well as in the *division of labor*, and both of these may be best introduced in large manufactories, where money and mind can be brought to bear on the same objects. The following remarks of Dr Johnson are good authority as well as good sense.

"Boyle has observed, that the excellency of manufactures, and the facility of labor would be much promoted if the various expedients and contrivances which lie concealed in private hands, were by reciprocal communications made generally known; for there are few operations that are not performed by one or other with some peculiar advantages, which though singly of little importance, would by conjunction and concurrence open new inlets to knowledge, and give new powers to diligence."

These "expedients and contrivances" for giving "new powers to diligence," would surely be more apt to be developed as well as more easily made generally known, and the inventors would have a better chance to be rewarded for their ingenuity in large manufactories, than where solitary workmen were laboring in seclusion. Some of the labors preparatory to the manufacture of silk require little capital and less skill; such as propagating the mulberry, gathering the leaves, raising and feeding the worms, &c. These can be performed in every family, and by every individual who has hands, eyes, and is capable of moderate locomotion. The higher branches of the art require accomplished artizans and that union of capital and intellect which is most likely to be found in associated companies. But, without such companies the individuals adverted to would find less encouragement, because they could not produce the perfected articles of the first class, or at least could not afford them at the common market price.

We do not see how any objection can be raised against silk societies, which will not as well apply to

agricultural societies, or any other societies in which improvement is the object. The cotton planter might as rationally oppose cotton factories, as the farmer object to silk factories, for which he does or may furnish materials to be wrought upon. In both cases, to use a homely but expressive phrase, the opponents to factories "*quarrel with their own bread and butter.*"

[For the New England Farmer,]

THE SEASON.

Vegetation has come forward in the course of the last week with unexampled rapidity. Trees were in their fullest bloom on Friday the 29th ult., and on Wednesday succeeding the fruit was visible,—Cherries, Gooseberries, and Currants are quite forward, the grass has come forward promising well, but should judge not so well as on an average for the last seven or eight years: our pastures are very backward as all will be able to discover by the high price given for poor butter; we must have patience for one week longer before we can have it in perfection, as the season has left the pastures, if nothing else, ten days in arrears. Seeds have come up remarkably well and quick (I only speak of such as I had from the New England Seed Store), and if the warm weather continues the Farmer's work will press heavily upon him for a while.

June 4th, 1835.

F.

NEW YORK AMERICAN SILK SOCIETY—A society, having for its object the introduction and extension throughout the country of the knowledge and practice of cultivating and raising mulberry trees, of feeding and managing silk worms and reeling silk from cocoons in the most approved method.

The importance of this knowledge will appear from the fact that the nett profit of land devoted to the culture of Silk, is double, if not triple, to that derived from any other crop which can be put upon it, it is also a fact, that every moderate farmer can raise several hundred dollars worth of silk, without interfering with his ordinary agricultural operations. But in order to avail himself of this facility to obtain competency and wealth, which our soil and climate have given him, he must possess himself of information on the subject—for without it his attempts will be fruitless. It is, therefore, the object of the Committee to diffuse this information as extensively as possible.

This Society was formed in this city on the 15th of May, 1835.—*Long Island Star.*

HUGE DANDELION.—Mr G. Pierce exhibited in the Boston Market, Stall No. 90, a Dandelion, which weighed 4½ pounds.

SILK CULTURE.

Much allowance is to be made for the coloring given by enthusiastic men, warmly engaged in a new and untried pursuit; but after all deduction, *facts* enough have been presented to show conclusively that the silk business is capable of being made exceedingly profitable. And perhaps the most important fact of all is, that the culture has not only maintained its ground, but has been advancing in Connecticut for many years, and that under every disadvantage of imperfect machinery and want of capital, it has brought a far greater amount of money into a small town possessing no great natural advantages, than was ever realized for any one article of produce, from a similar extent of the most fertile bottom lands on the Connecticut. This culture seems likely too, to thrive more particularly in New England, inasmuch as its success depends more on the industry of the population than on the fertility of the territory. In all kinds of produce which can be raised by slave labor, the southern and western planters will always compete with us successfully. Worcester county, the finest agricultural county in New England, cannot profitably raise bread stuffs enough for its use; many thousand bushels of Southern corn are annually imported and consumed there. The cattle of Franklin county are sometimes competed with in Brighton market, by droves which have been pastured on the parks of Kentucky or the prairies of Illinois. It is "the industry of freedom" only, which has enabled New England to maintain her ground against the advantages presented by the superior soil of some parts of the Union, and the cheaper labor of other parts. Every new occupation which free labor can make profitable, and which is safe from the competition of slave labor, is a thousand times more consequence than the discovery of the richest gold mine would be.—*Franklin Mercury*.

AMERICAN SILK.—The Philadelphia Herald speaks of Mr Upton, of that city as having been for eighteen years engaged in silk manufacture. There is a gentleman in this vicinity, (Mr Cobb of Dedham,) who, for a shorter period has perhaps been working as effectually as any other person in the way of experiment. He began the cultivation of the mulberry tree in 1826; and since that time, notwithstanding the nature of the soil, which is not the most favorable, has extended his operations so much so as to be now in the habit of bringing to the Boston market American silk, manufactured, to the amount of about a hundred dollars a week, the year round. Recently he has introduced the great improvement of raising his trees from *slips*, by which he gains two years in the growth. Those planted by him the last spring we understand, have grown over four feet already.

The mulberry, in this particular excels all other trees.—*Bost. Mer. Jour.*

FERTILIZING PROPERTIES OF LIME.

A writer for the Genesee Farmer, with the signature "*Hakham*" gives the following remarks.

When the writer of this article went, in the days of his boyhood, to reside in one of the southern counties of Pennsylvania, the land upon which he lived had been purchased at the common price in the neighborhood, £4 Pennsylvania currency, per acre. A short distance to the northwest lay the great limestone valley, that extends, with some abrupt terminations, from New York to Virginia. The serpentine ridge which bounds this valley on the south-east, was considered by the inhabitants as the limits of the grain country; and although the land adjoining it south-eastward was a good sandy loam, it was thought that it would produce nothing but grass, and the land in the valley was then estimated at an average price of £15, or \$40 per acre. In a few years, however, the farmers began to haul lime from the valley, and make liberal applications of it on the land south of the ridge. They have continued this process with increasing industry for forty years, with increasing success, and the consequence has been that the valley, which was thought abundantly calcareous without the application of lime, has remained stationary in value, with some fluctuations during the late war, while the land upon which lime has been liberally applied, has advanced from £4 to 80 and \$100 per acre, and from the abundance of its crops fully justifies the purchaser.

TO DESTROY TICKS ON SHEEP.

FRIEND TUCKER—I have been a constant reader of thy valuable paper for more than two years, during which time I have noticed several communications on the best method of destroying ticks on sheep, none of which seem to me so well adapted to the end designed as that which an experience of sixty years in farming, has led me to adopt, and which is now submitted to the public with much diffidence. I have had for several years a flock of sheep about one hundred in number, composed of the Merino and Bakewell breeds, and when purchased by me the former were much afflicted by "the scab," and all by ticks—the lambs the most severely. For the destruction of the ticks, I procured between one-half and three fourths of a bushel of stems or refuse tobacco, which I boiled, and when the strength was sufficiently extracted, the liquor was put into a half hogshead tub, as being the most suitable for the operation intended—to this was added water till the tub was nearly full: After the sheep were sheared, they were taken and immersed in this decoction, a board being placed across the tub in

the meantime for the purpose of draining them on, thereby saving the liquor, which would otherwise be soon exhausted. In this operation the head of the sheep is to be exempt from immersion, and to be properly done three persons are necessary, one to manage the head and the others the feet. The lambs should undergo the same process, the decoction being previously diluted with water, and a little more care should be taken in draining them. A second operation will be necessary in about ten days after the first—this is indispensable to effect the object intended. The intervening time between the first and second immersion is necessary for the eggs of the old ones to hatch, and this young colony once destroyed, the cure is complete. It may be well to remark, in relation to this process, that its effect in the destruction of "the scab," was equally as salutary and decisive in the case of the ticks. If the foregoing remarks are deemed worthy of a place in the columns of the Farmer, insert them and oblige

A PENNSYLVANIA FARMER.

Wood Lawn, 3d. mo. 12, 1835.

FENCE POSTS.

MR EDITOR—I have been desirous for some time of addressing, through the medium of your paper my farming brethren on an important subject, viz. *the means of rendering fence posts more durable*, but I have not found suitable leisure till this day, which is by far the most tempestuous known in this region for the last thirty years. In my remarks I shall confine myself to my own experience. During winter when getting up my wood I make a practice of selecting my hemlock logs from ten to fourteen inches in diameter, clear from shakes and pretty straight. These being carefully peeled, I take them to a neighboring sawmill, and have them sawed as follows: first through the centre, and then turned on the side and sawed through twice so as to form six posts from one log. These I stick up under cover during one summer at least, so as to have them thoroughly seasoned. Then some time during the winter, I heat a large kettle of tar and thoroughly smear with it about three feet of the largest end of the post, and then stick them up again ready for use. The tar ought to extend a little above the surface of the ground so as to prevent the moisture as much as possible from penetrating into the post. The reason of preparing them so long before they are wanted for use is to allow the tar to become hard by exposure to the air. When posts are prepared in this way, I am confident from my own experience they last more than twice as long as when set up in the usual way.

Some farmers of my acquaintance set their posts green and with the bark on. In this case, decay commences immediately, the bark acting as

a sponge to absorb and retain moisture and in the course of four or five years every high wind knocks down a number of posts which fall so heavily and with so much force as to break or to split the boards, and thus do material damage; and then by not having a supply of posts on hand they are obliged to take their teams (which are wanted for other purposes) into the woods for a new set of this miserable apology for fence posts. Taking all things into consideration (and this farmers ought to do) I think about one half of the expense of supporting a post and board fence is saved by this method.—*National Eagle.*

WASTE OF MANURE.—"But as an example may perhaps bring this before you in a stronger point of view than in any other way I can put it: let me suppose that some of you should purchase a little tea at a grocer's; as long as you keep it dry and shut up from the weather, it will preserve its original strength, even for years; but when you put into a teapot, and pour water on it three or four times, the strength is all gone, and your tea becomes, I may say useless matter. It is just so with your manure. I see it often placed in such situations that the rain water from your house and offices, and the seepage from the higher grounds, all run through it; thus every shower floods it day after day, carrying off always some part of the strength, until at length it is left as dead and as useless as the leaves thrown out of the teapot.

"Surely no man in his senses will persist any longer in such gross management. If you were to observe a man quietly stand by and see his potatoes destroyed, which are to be the chief support of himself and family, you would say he was either mad or a downright idiot; and if this would be your opinion of him, what can you say of yourselves when you stand by and daily look on at the destruction of that manure by which your potatoes are to be produced?"—*Blacker's Essay.*

COAL TRADE OF PENNSYLVANIA.—The vast increase of this trade, within a few years, renders all authentic details relating to it a subject of general interest: and in proof of this increase, it is only necessary to state, that in the year, 1820, no more than 365 tons of anthracite coal found their way to the market from the Lehigh mines, while in 1834 the quantity sold amounted to 374,222 tons, of which 106,500 were from the Lehigh, 224,242 from the Schuylkill, and 43,700 from the Lackawana mines; the Schuylkill mines having been opened for the market for the first time in the year 1825, and the Lackawana in 1829.

The Lehigh Company employ on the Lehigh

Canal and the Delaware, 275 boats, and others are employed by individuals. On the Morris Canal, there are 250 boats employed in this trade. The number of vessels laden with coal at Philadelphia and Bristol in 1834, was 469. The amount of Lehigh coal shipped coastwise during the same year was 32,154 tons, of which 14,006 tons were shipped from Newark.

The number and description of vessels cleared from the river Schuylkill, laden with coal, during the year 1834, were as follows: 72 brigs, 1122 schooners, and 420 sloops. The amount of tonnage of the boats employed in the transportation of coal from the Lehigh mines, is 22,150 tons; on the Schuylkill, 24,733.

The value of improvements and property connected with and arising from the anthracite coal trade of Pennsylvania in the three great coal fields is estimated by a committee of the Legislature of that State as follows, viz: rail roads and canals made by companies and individuals, including part of the State canals four hundred eighty-nine miles, 9,750,937.42; collieries, boats, cars, &c. 1,270,280; capital invested in coal lands, 4,900,000; mining capital, 480,000; value of towns in the coals fields, 3,375,000; making an aggregate of \$19,176,217.42; to which may be added the value of storehouses, wharves, landings, &c. in Philadelphia, New York and other places, together with the value of vessels and capital employed in shipping coal.

The bituminous coal lands in Pennsylvania are supposed by the same Committee to comprehend an extent of 21,000 square miles, and the anthracite of 975 square miles. Since the opening of the anthracite coal trade in 1820, its average annual increase has been 33 per cent. The Committee believe that it will continue during the next ten years to increase in the same ratio; in which case, the consumption in 1843 will be 10,510,980 tons, the value of which, at \$5 per ton, will be \$52,544,450. Supposing the increase not to exceed one half of the above estimate, the trade of that year, in the article of coal alone, will amount in value to twenty-six millions dollars.—*Boston Daily Advertiser*.

USE OF THE POTATO.

In the December number of the Edinburgh Quarterly Journal of Agriculture, Mr R. McAdam gives an article on the history and uses of the potato. Although this vegetable was known to Europeans soon after the discovery of America, yet, for more than one hundred years, its merits were unknown to the public. Not until about the middle of the 18th century, was it cultivated as a field crop in Great Britain. It has since been rapidly spreading over the world. Now millions and millions of bushels are annually cultivated. In a

comparatively few years, it will be cultivated in other vast and populous portions of the globe; and thus, even the present immense quantity will be many times quadrupled. We make a few extracts on the uses of the tuber.—*N. Y. Farmer*.

Cooking potatoes in various ways.—There is perhaps no species of food that can be consumed in a greater variety of ways, than the potato. Among us, the only modes in use are three or four, such as boiling, roasting, or frying; but our French neighbors, who surpass us, and all the world, in everything relating to cookery, at least so far as infinite variety is concerned, have several other ways of preparing this root. A French gentleman invited to dinner thirtytwo of his friends, promising to each a different dish, and yet all composed of the same material. They assembled, found before each dish a cover, and, upon taking their seats, discovered that each guest had really a different dish, though all formed of eggs! One of the company immediately repeated the invitation to all the persons present for the next day, when he promised to regale them in a similar manner, on another single substance, metamorphosed into thirtytwo different forms. They came and dined very comfortably on thirtytwo distinct and palatable dishes, all composed of potatoes.

Frosted Potatoes.—It is a very remarkable circumstance, that in *frosted* potatoes, it is only the *juice*, or liquid part of the root, that is affected, and not at all the farina or flour which may be equally well extracted, and will be found as white as if it had not been frozen, provided the root is not quite rotted, which in the process of time it will become. The following singular illustration of this took place in 1794: A field of potatoes at Camstradden, Dumbartonshire, was laid under water, by a sudden rise of Lochlomond. A quantity of these was got up, and in part brought home. Being wet, they were laid on the floors of out-houses to dry! but in a few days they were so spoiled as to be unfit for feeding cattle. A heap of the potatoes was left on the ground; when turned over next spring, some starch was found at the bottom, which excited a suspicion, that though the root had been affected by the frost, yet that the flour had remained uninjured. This was found to be the case; and a quantity of the farina was collected from the heap, part of which was distributed in Dumbartonshire, and the remainder was brought to Stirling, in 1804. As arrow-root had become fashionable about that time it was often used as a substitute, and many ate of it without knowing the difference. In 1825, a dish of it was made with milk, and two gentlemen who supped on it declared that they would not have known it from arrow root. A specimen of this same flour of 1794 was sent to Sir John Sinclair in 1826, and it seemed as good as any produced from the potatoes

of that year, after having been kept for above thirty years.

Potato starch in Bread.—It is well known that the manufacture of bread, even when conducted by the most skilful and experienced bakers, is sometimes very difficult. From the various casualties to which wheaten flour has been liable, from disease in the crop, or bad management in the keeping or grinding of the grain, it frequently loses some of its most essential qualities, and causes the bread, in defiance of the baker's art, to contract a sourness, which is both disagreeable to the taste and prejudicial to the health. Fortunately a remedy has been discovered of late years; that of mixing with the flour a small quantity of *potato starch, previously converted into a jelly*. This kind of bread is remarkably light, and keeps longer moist than any other bread. It toasts much better, and makes better bread puddings.

Potato Flour for Children.—Another most important use to which potato flour can be applied is to give it, boiled in milk, in the proportion of *two* spoonfuls of flour to one pint of milk, to young children, brought up by hand, and not at the breast or after they are weaned from the breast.

Potato Starch for Weavers.—Until of late this was entirely made from wheat, and still a great proportion of it is so. But if potato starch were universally adopted for the purpose, as is the case now throughout France, a very great consumption of wheat would be saved. This substance is also put to another use, namely, the making of size, which for some purposes, such as whitewashing, is greatly superior to the common size, as it has no offensive smell, and has a more durable whiteness.

Potato Cheese.—The manufacture of this is carried on in Thuringia and Saxony, and it has the advantage of retaining its freshness for several years, provided it be kept in close vessels. It is prepared by boiling the potatoes, and reducing them, when cold, to a pulp, rejecting skins. Sour milk is added, or else sweet curd with the whey pressed out, in the proportion of a pint to 5 pound of pulp. It is kneaded several times, drained in small baskets, and simply dried in the shade.

Coffee from Potatoes.—A mode has been suggested by a French chemist for converting potatoes into a substance resembling coffee. He mixes some best olive oil with a certain portion of dried potato flour, and then adds a small quantity of coffee powder. He asserts that this will produce a liquor more agreeable than coffee.

Potatoes used for Dyeing and Cleansing.—A chemist in Copenhagen has discovered that the flowers of the plant may be used in dyeing. By this means a beautiful yellow collar may be obtained, which is solid and durable. By plunging the color into blue, it becomes a perfect green. It has

likewise been found, that the juice contained in the potato will produce a gray color of great beauty. The liquor drawn off in the process of making starch, will clean silks, woollens, or cottons, without damage to the texture or color. It is also good for cleaning waincoats.

Potatoes prevent Incrustations in Steam Boilers.—Potatoes are used with excellent effect in the boilers of steam engines, for preventing the gathering of a calcareous incrustation on the bottom, which is gradually deposited from the water employed. The potatoes give out a glutinous substance which entangles the particles in the water, and prevents them from incrusting the iron of the boiler.

Potatoes a cure for the Scurvy.—A medical use of the potato has been lately suggested in a valuable French publication; namely, as a preventive of, and even cure for, the scurvy. Roasted potatoes were administered with perfect success to sailors afflicted with the disorder, after other approved medicines had been given in vain. As *roasted* potatoes are the most effectual, it seems probable that the remedy depends on some of the substances contained in the black liquid which boils out of potatoes, and which is retained in roasting.

SALTING BUTTER.—The quantity of salt for butter that is not to be eaten for several months after salting, should not be less than half an ounce of salt, mixed with two drachms of sugar and two drachms of nitre, to sixteen ounces of butter. The sugar improves the taste, and the nitre gives the butter a better color, while both of them act with the salt in preserving the butter from rancidity. If the salt is not minutely mixed into the butter, that on which it rests will have a yellow or brownish color, while the rest will be of a white color, which, in dairy language is termed "pyety butter," that brings an inferior price. But although the butter has to be kneaded among, and the salt well mixed into it, care must be taken not to bake or knead it too much, otherwise it will become tough and gluey.—*Quar. Journal.*

THINGS A FARMER SHOULD NOT DO.

A farmer should never undertake to cultivate more land than he can do thoroughly; half tilled land is growing poorer—well tilled land is constantly improving.

A farmer should never keep more cattle, horses, sheep, or hogs, than he can keep in good order: an animal in high order the first of December, is already half wintered.

A farmer should never depend on his neighbor for what he can by care and good management, produce on his own farm; he should never beg fruit while he can plant trees, or bor-

row tools while he can make or buy; a high authority has said, the borrower is a servant to the lender.

The farmer should never be so immersed in political matters, as to forget to sow his wheat, dig his potatoes, and bank up his cellar; nor should he be so inattentive to them as to remain ignorant of those great questions of national and state policy which will always agitate more or less, a free people.

A farmer should shun the door of a bank as he would an approach of the plague or cholera; banks are for men of speculation, and theirs is a business with which farmers should have little to do.

A farmer should never be ashamed of his calling; we know that no man can be entirely independent, yet the farmer should remember, that if any one can be said to possess that enviable distinction, he is the man.

No farmer should allow the reproach of neglecting education to lie against himself or family; if knowledge is power, the beginning of it should be early and deeply laid in the district school.

A farmer should never use ardent spirit as a drink; if, while undergoing severe fatigue, and the hard labors of the summer, he would enjoy robust health, let him be temperate in all things.

A farmer should never refuse a fair price for anything he wishes to sell; we have known a man who had several bushels of wheat to dispose of, refuse 8s. because he wanted 8s. 6d. and after keeping his wheat six months, was glad to get 6s. 6d. for it.

A farmer should never allow his wood-house to be emptied of wood during the summer months; if he does, when winter comes, in addition to cold fingers, he must expect to encounter the chilling looks of his wife, and perhaps be compelled, in a series of lectures, to learn that the man who burns green wood has not mastered the A B C of domestic economy.

A farmer should never allow his window to be filled with red cloaks, tattered coats, and old hats; if he does he will most assuredly acquire the reputation of a man who tarries long at the whiskey, leaving his wife and children to freeze or starve at home.

There are three things of which the man who aims at the character of a prosperous farmer will never be niggardly—manure, tillage, and seed: and there are three things of which he will never be too liberal—promise, time, and credit.

In 1834, asparagus was sent to market from the Salem almshouse on the 16th of April; in 1835, on the 13th of May; the same means used to bring it forward early in both years.—*Salem Register*.

CHINESE MULBERRY.

The first genuine seed of this plant ever had in this country, was obtained by the Secretary of our Agricultural Society, through an American Missionary resident at Canton. It was distributed among individuals here and various experiments have been made and others are now making in this town, to test its adaption to our climate and superiority over the common mulberry for the feeding of silk worms. As the seedling plant is but little known in this country except in this town and its character is exciting much interest with silk growers, we have tried, through Dr Stebbins, to collect such facts about the nature and cultivation of the plants. The Secretary says—

“This seed was probably the first and only true seed ever imported. It was sowed in drills, and where not planted too deep did well; some was sown as late as the month of August and did well. The seed should be planted only about one fourth of an inch in depth. The leaves attained a good size, more than 10 inches by 9, and probably would have grown to a greater size, had not the leaves been killed by the early severe frost, which destroyed many other of a much firmer wood; the roots have, however, been well preserved and will answer well for trasplanting this spring—those who have made engagements for them will be supplied, and can have more if wanted and applied for soon.”

There is one distinctive peculiarity between the leaves of the seedling Chinese Mulberry of the last year and the leaves of plants or trees which have been long in the country, propagated from cuttings or layers, while the leaves of the latter are pendulous, having the appearance of debility—the former from the seed give out a leaf of stout texture, of equal size, without any appearance of debility, equally soft, silky, and as congenial to the constitution of the worm. For feeding worms one pound of the Chinese mulberry is said to be equal to nearly double that quantity of white mulberry, probably because *young worms* will not or cannot eat the fibres and stems of the white mulberry, while of the Chinese leaf the worms eat stem and all, a great saving in feed. It is agreed among horticulturists, and a fact acknowledged by nursery men, that trees propagated by cuttings or shoots, are not as long-lived as those from seed. This circumstance is highly favorable to the culture of the Chinese seedling.

Although the climate of New England may be congenial to the growth and culture of the Chinese mulberry, and that trees have withstood the severity of several winters, even in open and exposed situations, because these trees have not been disturbed by frequent hoeing about the roots, in the extensive cultivation of the Chinese mulberry, it may be prudent to accelerate the growth in the

early part of the season, by frequent hoeing and stirring the earth about the plant—and by or before the middle of the month of August, it will be necessary wholly to omit stirring the earth about the roots, to impede the growth of the tree. To use the leaves for feeding worms, or for drying in a shade with a sprinkling of salt and packed away for early use the next spring. By this method the tree may acquire a more firm texture or wood. On light soil the plant will soonest cease to grow, therefore our poor light land will best answer for the propagation of the Chinese mulberry, and on such land be more likely to acquire firm wood and the capability of withstanding the severity of northern winters. But as the plant may be multiplied by cuttings or layers, to a great extent, should any person fear the severity of winter, the plants may be easily secured by laying down the plant and covering with earth, or by drawing up the earth a few inches above where the sprouts start from the foot stalk—or by taking up the roots and setting out in a cellar or out house. These several methods have been adopted with success, and have preserved the roots in a healthy condition; but the tender plants which were left in the field without any protection have suffered severely, especially in consequence of the early frost, which proved the death not only of the Chinese mulberry stock, but also some of our most hardy trees. The free circulation of the sap being thus impeded, and retained in the body of the tree, until the winter frost set in, froze the sap and in many instances opened large crevices in the bark and wood of the grape, peach, cherry and perhaps some other trees, some of which are apparently dead above the openings, and no plant in its green state, could withstand such attacks without some protection—where this has been attended to, the roots appear healthy. In setting out this spring, if the stalks of the seedling had not been killed the cultivator would have cut away the stalk to about one or two inches above the root before transplanting, that vigorous shoots should put forth from the root to form layers. The coming season, a leading stalk may be left for a standard tree, the lower branches bent down for layers, secured in place by forked sticks, covered a few inches with earth, every eye or bud would give out a branch or tree equal to the original stalk, and a corresponding root; and when wanted for removal or transplanting can be separated from the parent stock without injury.

I have this day examined a standard tree, *M. Multicaulis*, which was set in an exposed situation, and has stood the severity of the last three winters, as uninjured as an *elm*, *oak*, or any of the most hardy forest trees. It has attained about its greatest height, 8 feet, and is in full life to the extremity of the topmost shoot. The grass has

grown about the roots, therefore, has not been much disturbed by hoeing, and in consequence acquired hard wood, the very result wanted by the cultivator of the Chinese mulberry. From the above experiment, may we not expect, that by setting the *Morus Multicaulis* for standard trees, and leave the earth about the roots undisturbed, that this tree will be so acclimated as to withstand our severest winters? The experiment will undoubtedly be made and the writer would be much obliged to have all and any facts which shall come to the knowledge of his friends, respecting the culture of the *Morus Multicaulis*, communicated to him, that the public may have the benefit of the information.

Different forms of setting out the plants or roots will probably be adopted by different cultivators, adapted to the several objects in view. If the intention shall be only to multiply the plant, the rows may be 4 to 6 feet apart and the plants three feet apart in the rows—the space between the rows may be planted with potatoes without injury to the plants and without much loss of ground.

But if the intention should be to form standard trees, for feeding worms and also for multiplying layers, then it would be proper to have the plants set in rows about six or eight feet apart, and the same distance apart in the rows, and the space between the rows may be used for potatoes, turnips, cabbages, or other low vegetables, which would not require hoeing after the first or middle of August.—*Northampton Courier*.

WASHING SHEEP.

It may seem somewhat early in the day, to think or say anything upon this subject, when the hills and the mountains on our frontier look so much like January, and the clouds and the air look and feel more like November than lovely smiling May. But in all probability the time is not far distant when sheep must be sheared, and ought previously to be washed. By *washed*, we mean what the word was originally designed to mean—a thorough purification from all dirt and extraneous matter by *water*, not mere sopping in a mud puddle, and then a drying upon a sand bank. But to be serious. The State of Maine annually suffers a severe loss by neglect in washing the wool upon the sheep as it ought to be. Many seem to think that the more dirt they can sell the more gain. No such thing. Saying nothing of the iniquity of the thing, it is exceedingly injurious to the reputation of the wool-grower. The buyer looks narrowly at the quality and cleanliness of the fleece, and he makes up his mind accordingly. If it be clean he will give a fair price, if it be dirty he makes a deduction, and always enough to bring the seller a loss on the actual value of the wool.

We earnestly hope that our wool-growers will

see to this thing, and endeavor to have their fleeces in the finest state possible for the market. There seems to be an indication now, that the manufacturer is willing to give a fair price for fleece wool, and it is no more than just that the wool-growers should meet him in as fair a manner; with a good well washed article. By so doing the buyer will be the gainer, the seller will be the gainer, the State will be the gainer—all will be gainers.—*Maine Farmer.*

RHODE ISLAND SILK.—A few months since, we gave some account of the operations of the Valentine Silk Company, in this city. They were at that time just getting their plantation of Mulberry trees under way, and had commenced operating some machinery by way of experiment. Since that time, they have manufactured a considerable quantity of rich and beautiful goods, and have been so fully satisfied with the result of their experiment, that they have fitted up, in the vicinity of the Steam Cotton Factory, in this city, a building, thirty feet by ninety, three stories high, with a basement, to be devoted hereafter to the manufacture of Silk. An engine of six horse power, is already up, and the machinery will be in operation, in the course of a week. Thus as Rhode Island led the way in the manufacture of Cotton, so does she lead in the manufacture of Silk—and we do not doubt that the latter enterprize will prove to be even more beneficial to New England, than the former has ever been.

The plantation of this Company, now contains about 30,000 trees, from four to five years old, and from six to eight feet high. One of the oldest and most eminent silk culturists, in the United States, on examining this plantation a few days since, expressed the opinion that, for the next five years, its products would average half a pound of silk to the tree. The silk when wound upon the spool, is worth five dollars per pound. At this estimate, the whole product of the plantation would amount to the incredible sum of \$75,000 per year. * But admitting—and it is admitted on all hands—that the trees for the next five years will average one-eighth of a pound each, the product of the plantation will amount to upwards of \$18,000 per year.

It is to be hoped that extensive preparations will be made during the present season, to extend the growth, of what promises to become in a few years, the great staple of New England. It is a staple too, that will require as little protection against foreign competition, as the cotton of the South, and promises to relieve us more than any thing else, from the necessity of calling for the revival of the protecting policy, after the period of limitation shall expire.—*Providence Journal.*

SILK CULTURE.—Some of the most important discoveries in science have been the result of accident. Newton's mind was directed to inquire successfully into the principle of gravitation by the falling of a blighted apple upon his head, while reposing in the shade of a tree. Faust it is said, was led to the discovery of the art of printing by simply noticing the impression made upon a piece of parchment by some hard plate in his pocket. And the famous weighing scales, invented by Mr Thaddens Fairbanks, of St. Johnsbury, and which, by some, are considered the greatest invention since the steamboat, are said to be the result of hasty cogitation in the workshop. We look at most of the important inventions of the age, and find them so simple in their first principles, that we almost involuntarily ask, why were not these things known before? Why have we been groping on for years in ignorance of principles so simple, and yet so vastly important in their practical application?

The successful culture of silk, in this country, and particularly in Vermont, may be regarded in the light of a recent discovery; and we are confident the time cannot be remote, when our farmers in Vermont will be wondering at themselves, that they should so long have deprived themselves of the rich rewards of an appropriate branch of profitable husbandry. We invite the attention of our farming readers in particular to the letter of Ambrose Spencer on the preceding page. The idea of manufacturing silk in poor houses strikes us as very important in relation to N. York. In this State, the manufacture must be carried on if at all, by all grades, for in respect to property, it may be said of us, that we are blest with a "glorious mediocrity."

The silk business must go ahead. Let every farmer who can try the experiment of raising the mulberry—wherever that flourishes, it seems to be conceded by all that the worm will thrive also. Try it.—*Vermont State Journal.*

VACCINATION.—The discovery of vaccination, as a preventative of that scourge the small pox, was one of the greatest blessings ever conferred upon man. Its absolute efficiency is now established beyond doubt. The Report of the British Vaccine Institution goes strongly to this point; as it appears by it, that the deaths by small pox in London, the last year, were only 324; being 4000 at least less than the annual average of deaths by that disorder before vaccination was discovered, though the population of that city was then more than one third less than it is at present. There were vaccinated, the last year, at the institution, 11,571 poor persons; and 83,191 other persons out of the institution.—*Essex Register.*

MULBERRY TREE.

Directions for sowing the seed, and rearing the plants, of the White Mulberry Tree: prepared in pursuance of a resolution of the New York State Agricultural Society.

1. Prepare a good piece of garden soil, by digging and pulverizing it; lay it out in beds three or four feet broad, and rake it off smooth. Do this early in May. Sow from 12th May to the 1st June.

2. With a hoe, stick, or other instrument, proceed to make shallow drills across the bed thus prepared, from twelve to fifteen inches apart, and scatter the seed in the drills as thick as you would onion or parsnip seed; then cover half an inch with fine mould, and press it moderately down with a hoe; or when the first drill is sown and covered, place upon it a narrow strip of board and stand upon this board to sow the second drill, upon which, when sown, place the board in a like manner, and sow the third drill and proceed thus until the whole is completed. The pressure of the earth upon the seeds is to bring it in close contact with them, that they may be kept moist, and germinate readily. If the weather be dry, or the soil very light, an occasional watering at evening will be beneficial.

3. The only further care required, the first season, will be to keep the ground free from weeds and the soil moderately loose.

4. Strong plants of one year's growth may be transplanted in April into nursery rows; or the whole may be left to grow a second summer in the seed bed; the ground, as before, being kept from weeds, and occasionally stirred.

5. After two summer's growth, all the strong and healthy plants should be placed in nursery rows, which may be done thus; the good ground being prepared, as for a crop, draw a line and proceed to open a trench, of sufficient breadth and depth to admit the roots freely, leaving the side next the line straight and perpendicular. Having assorted the plants, and cut off the bruised, and shortened the top roots, a man proceeds to lay them in a trench, in their proper position, the heel of the plant towards the line, and at the distance of a foot apart: while another man with a spade or the planter with a gardener's trowel, throws in earth to hold them in their places. The trench is then to be filled, the plants set upright, and the earth trod about them. The other rows are planted in like manner, three feet apart; the ground to be kept clean during the season.

6. After standing two years in nursery, the plants will have acquired a sufficient size to plant out in the ground where they are to stand; and if intended to be grown in hedges, or as bushes, they may be taken earlier, even at two years old, from the seed bed. For hedges, plant the same as for

nursery rows, at eighteen inches, the ground having been previously prepared by an ameliorating crop, as potatoes. The same precautions are necessary with mulberry as with other fruit trees, intended for standards, as to distance and planting. A broad and deep hole, partially filled with good surface mould, will always repay for extra labor. When intended to be cultivated as bushes, they may be planted thick and left untrimmed, so as to occupy the entire ground. The mulberry is generally grown in the latter way in India and some parts of Italy. It facilitates the gathering of the leaves, and affords an earlier product.

The mulberry grows well on almost any soil, and particularly in one which is stony. Upon poor, dry soils, it affords the best material for silk. An ounce of seed will give some thousand plants, and require a bed four feet broad, and forty to fifty feet long. J. BUEL, *Cor. Sec.*

Albany, March 15, 1835.

THE SILK CULTURE.—The culture of the mulberry tree, and the production of silk, appears at this time to be drawing the attention of the people of this state, and many have already made considerable progress in preparations necessary for its continued and successful pursuit. It is unquestionably worthy of their attention, and we believe the day is not far distant when silk is to become one of the staple productions of the Northern States. A fair experiment proves that the climate is favorable, and that it may, at little expense, be made to every family a safe, convenient and highly lucrative employment.

Many gentlemen in this vicinity have this spring arranged, and others are arranging their mulberry orchards, and the interest which it engages affords a safe assurance of the complete success of the undertaking.

Individuals introduced the business several years since—more perhaps for the curiosity of the thing than any hope of profit—but the imperfect experiments which have been thus tried, show that each thrifty tree at five years old will produce one dollar!—*N. H. Statesman.*

AN INDUSTRIOUS WIFE.—A married lady, of about twentyone years of age, in a town in this county, besides taking the whole care of her family, braided in as many successive days, (Sundays and one week of ill-health excepted) *one hundred palm leaf hats*, which she brought to this town, a few weeks since, and sold in a lot for forty dollars. The stock cost her six cents apiece, so that the nett gain of her labors has been thirtyfour dollars. Praise upon a married lady is, however, rather posthumous, for her fate is fixed; but if our *single damsels* will exert a like industry, the story of their deeds might not be told in vain.—*Ports. Jour.*

The two following articles are from a communication read before the New York Agricultural Society at its last meeting, by H. HICKCOCK, Esq.

DESTRUCTION OF WEEDS.

The spirits of turpentine I have found a subtle poison to all plants experimented upon, and among others, I have applied it to milkweed, burdock, and Canada thistle; a teaspoonful dropped on the stem will run down and destroy it to the ground, and if the root is not, on the first trial, destroyed, a repetition will be sufficient. This remedy may be of particular use where weeds start up from under stone walls or other inaccessible places.

Johnswort is regarded by many farmers as more noxious than the Canada thistle. It frequently usurps whole fields to the exclusion of all the valuable grasses. On some spots of land covered with this weed I spread gypsum, at the rate of three bushels an acre, and had the satisfaction to find that the spots were soon covered with a thick mat of white clover and other grasses; while the Johnswort was fast running out. It is quite possible that a less quantity of gypsum per acre might answer a similar purpose.

COMPOST.

There are two ways of making a compost, or mixture of earth with manure. Agreeably to one method, a mound is formed in the barn yard or near it, consisting of alternate beds of manure and earth: when the manure has fermented, the mass is turned over with the spade and partially mixed. After a renewal and subsidence of fermentation, the materials are again turned over with a spade and more thoroughly blended together. The compost is then drawn out and spread on the field.

The other way of mixing earth with manure, is much less laborious and expensive, and is thought to be, in many respects, more advantageous. The method is this. In the spring of the year, draw out all the manure, including straw, cornstalks, cobs and all other coarse materials fit for the purpose, into the field; spread it, and turn the whole under the soil, from six to twelve inches deep, with the plough. In order to have the work well done, one or more persons must follow the plough, and with a rake, or hoe or fork, place the coarse manure in the bottom of the furrow.

When the manure is not spread over the whole of the field, as in common cases, and the coarse materials cover a still less portion of it, one person is sufficient to follow the plough. But when a lot is entirely covered with coarse manure, two followers will be required, and even three if the business is not properly arranged. The following regulation will save the labor of one hand,

by rendering unnecessary the passing and repassing of the rakers, which the method suggested by our first thoughts, would require. The first raker must set in after the plough, and continue his course; when the plough has performed one bout, the second raker begins his course. The first raker upon completing his round will stop: for he will find the furrow here filled with manure by his companion; but his stop will not be long, for the team will be close upon him, barely allowing him to step aside and permit it to pass; when he again sets in with his rake, or hoe or fork. In this way the business will be conducted with great regularity and to the best advantage.

When the manure has been thus buried under ground, it is usual to plant corn in the field, that plants may be present to partake of the food which the manure furnishes during its decomposition, and also, to keep the field constantly producing valuable crops. In the autumn after the corn is gathered, the soil is turned over with the plough, and with the assistance of the harrow, the decomposed manure and the soil are well mixed together. The compost is now perfected and the field is in a state of preparation for winter grain.

To this method it has been objected, that the gases, which first escape during the fermentation of manure, are poisonous to plants, and that their disengagement should be effected, in places where they could not exert their efforts injuriously. The results of several experiments which I have made, would appear to speak a different language from this.

I excavated a spot in my garden about a foot deep, and filled it half full with clean wheat straw; over this was thrown the soil which had been displaced, and melon seeds were planted. The fruit was the largest and best I had ever raised. Upon examination, I found that the straw had undergone a thorough decomposition.

Another spot in the garden I trenched, to the depth of two feet, and deposited in it manure from the horse stable, six inches deep, and then filled the trench with the soil which had been thrown out. On this bed were sown parsnip seed; when the roots had attained the size of a goose quill, I dug some of them up. The roots had passed straight down to the manure, and at this depth, which was eighteen inches, they were of two thirds of their size at the surface; the roots when dug up for the table, were rather long than large, and they were excellent.

CHINESE METHOD OF CULTIVATING THE MULBERRY.—The Chinese have various methods for cultivating the mulberry, all of which may be advantageously adopted in this country. One method is as follows:—In the spring, they sow the seed,

in well prepared ground, in drills or by broad cast. The next year, when the plants are covered with foliage, they mow them down, in the same manner that farmers mow small bushes in their pastures, and feed the worms. These mowings are followed until the stock becomes so stinted and exhausted as to be unable to send forth shoots, when they sow another piece of ground for the ensuing year. This crop can be daily made, except after very dry weather, in different portions of the ground, and each plant will bear to be topped three times at least before the mounting of the silk worms.

This method has several important advantages over all other methods. The leaves are gathered with trifling labor and expense—the same area of ground will produce more foliage—it enables the culturist to commence the making of silk in the course of one year—tenants from year to year, as well as owners of the soil, can secure a yearly crop of silk, and the quantity of silk can be increased or diminished according to the demand of the market or of the manufacturers.

This method can, doubtless, be advantageously adopted in this country, subject, however, to such modifications as the variableness or vicissitudes of our climate require. Dr Pascalis, an eminent and experienced silk culturist, suggests the propriety of sowing in the latter part of the summer, and also to gather and dry carefully the foliage before using.—*Silk Culturist*.

SILK CULTURE.

The following in answer to a letter from Judge SPENCER, published on page 5 of our first number, presents valuable information and, together with the address to which this is a reponse, affords gratifying proof that our men of the first talents, and of the highest standing in the community are employing their influence and directing their mental powers to the due development of a branch of economy, destined to become a copious source of national as well as of individual prosperity.

GENEVA, MAY 12, 1835.

To the Hon. Ambrose Spencer.

DEAR SIR—The honor you have done me by associating my name with yours, in a late letter on silk and the mulberry tree would be most fitly acknowledged by my rendering some useful service, if I were able, to the cause of public improvement. Having, however, nothing of my own to offer, I have taken a few days, since your letter, to gain information of the mulberry plantations which have sprung up in this neighborhood, in consequence of the report, which, as chairman of the committee on agriculture, you presented to Congress on this subject. And I desire to address to you publicly the result of this

information, limited as it is, for several reasons;—that the public may be prepared for the great change in this branch of production which I verily believe is approaching;—that producers may feel confidence in having a staple market such as any *large* product will always command, though one *more limited*, may perish for the want of it;—that you personally, may see more of the fruit of your labors;— and generally, that those who labor for the public good may have another example of successful effort, and may know that their names are often blessed by thousands whom they never hear of.

Within a circle of twenty miles round this place, there are the means of entering upon the culture of silk almost immediately, and upon an extensive scale. One plantation of mulberry, if I am rightly informed, contains sixteen acres. There are very considerable nurseries of young trees for sale. Two gentlemen of this village have young plantations for use; and I have applications, since your letter, for information, for seeds, &c., on the mistaken idea that I know something about the matter. Finally, it may be useful to know that a Mr Loomis, of the "*Seneca Castle*," in this town, an early settler and a revolutionary soldier, has a noble avenue planted with white mulberry trees, nearly fifty years old, and which will probably give seed enough in the fall to supply any supposable demand. If other parts of the country are awake to this subject in any corresponding degree, there seems no reason to doubt but we are on the point of beginning another great branch of production, and one which will lead to important changes in trade, manufacture and consumption.

You mention that silk has been cultivated in the eastern parts of Connecticut since the year 1760, and you adduce facts to show that there is no mystery in the *production*; and that now, so soon as American ingenuity was applied to the subject, all mystery has disappeared from the process of *reeling*, also. The great difficulty with every new branch of agricultural product, is an apprehension that there is something in it requiring peculiar art and skill, and therefore that in new hands it is peculiarly liable to failure. Such opinions are often encouraged by an air of quackery in books that teach the art. I desire, therefore, to add a word on these points.

I did suppose (but have not time to examine) that there were scraps of history which showed that the British Government, or perhaps plantation companies or proprietors, had introduced the culture of silk in this country earlier than the date you refer to. But this I know, that I have heard the whole process described by old people, when I was a child, and I think this recollection

of mine must go back nearly to the peace of 1783. The important point however is, that as they stated, the whole process—raising, reeling, dyeing and weaving—was so very easy, that a young woman could make herself a silk gown as easily as one of linen or flannel; (cotton was not then in domestic use,) and that the young women of that part of Connecticut where silk was raised, were often dressed in those times, in silks which were, throughout, of their own manufacture. In mentioning this to Mr Loomis, (to whom I have before referred,) he confirmed the fact from his own recollection, and added that whenever they made sewing silk, it was eagerly bought up in preference to any other. When now we consider that according to Mr D'Homergue, the product might be doubled in amount by skilful reeling, the real cheapness of the article becomes quite astonishing. What then shall we say to the additional fact, to which you have referred in your published papers, that almost all the work may be done by hands not capable of hard labor; by women, children, persons in weak health; by female and other feeble convicts in prison? In some papers which I published in 1830, on State Prisons, &c., the subject was referred to as means of employment at Sing Sing, and as having been suggested by an intelligent assistant keeper there.

I have today conversed with an intelligent neighbor, who has both lately and formerly seen the mulberry cultivated in hedges, slashed down and kept so low that the leaves may be plucked by persons standing on the ground. Another of my neighbors has a small nursery, consisting wholly of young trees produced from *cuttings*; and from those young trees he has again given me many hundred cuttings, which I have set with a view to a nursery of my own. Allow me to close this letter by stating summarily from known facts, (though not exactly from my personal experience) the great advantages of such hedges.

1. The young mulberry sends out side and bottom shoots very beautifully.

2. The prunings of those, will furnish cuttings or scions for hedges; and those hedges will furnish a considerable supply of leaves the next year and in three or four years be as high as a man can reach. The more they are topped down, the more side shoots.

3. I am assured that a thick set hedge of mulberry will effectually turn large *cattle*; though I doubt whether it will, when old, be thick enough at bottom to prevent small animals from passing through it.

4. By planting hedges six or eight feet apart and keeping them not more than six or seven feet high, I think it plain that the ground will produce vastly more leaves than could be got from large trees set orchard-wise.

5. In this way the rearing of a few worms may be begun the second year, and be most rapidly increased subsequently. I suppose, too, the leaves of these young branches must be the most juicy, and tender.

6. If the hedges, when they become old, are liable to any objections whatever, new ones can be made with vast ease between the old rows, which then may be rooted up.

I am, dear Sir, with great respect and
friendship, yours, &c.

SAM. M. HOPKINS.

SILK WORMS.

The eggs kept open in a warm room will hatch themselves at about the time the mulberry tree shoots its leaves. If the young worms happen to come out too soon, they may be kept alive a few days upon lettuce. As soon as they begin to hatch apply to them the tender mulberry leaves. They will soon attach themselves to the leaves and begin to eat; when they have eaten or extracted the moisture from the first leaves fresh ones must be added; when the old leaves become thick, take off the top laying with the worms, and remove the others; do this eight or ten times during the first three weeks; then spread the worms on shelves, allowing about a square inch of space to each worm. Continue to feed them until they wind their balls, which will be from forty to sixty days. They are perfectly harmless. Prepare some dry bushes and spread over the worms or set them up near them when they begin to wind; after they have ceased winding, in two or three days, pick off the cocoons and strip off the loose tow—the balls must be reeled or baked in a few days to prevent their eating out. Bake them in an oven moderately heated; let the oven be as warm as it commonly is when bread is done baking, and let them be in the oven an hour, then taken out and dried.

Spiders, ants, mice, cats, fowls, &c. must be kept from the worms. Wet leaves must not be given them. When the worms are shedding their coats which they do four times they should not be disturbed by feeding. At other times they should have as much as they will eat. The sun should not shine on them.

The reeling is performed by putting the balls into hot water, gathering the fibres and running them off on the reel.

J. H. COBE.

The Maine Farmer, says, Capt. John Haines of Readfield, has discovered that a little tar, laid on the backs of cattle in spots will kill or drive off all lice. If so, this is much better than muguentum, or other mercurial ointments, or tobacco juice, which will injure the cattle.

BRIGHTON MARKET,—MONDAY, JUNE 8, 1835.

Reported for the Daily Advertiser & Patriot.

At Market, 270 Beef Cattle, 15 pairs Working Oxen, 20 Cows and Calves, 70 Sheep, and 62 Swine.

PRICES.—*Beef Cattle*—Extra, a few at 41s; good 36s a 39 and 40s; fair to middling 30 and 33s and 34s 6d. About 30 head unsold.

Working Oxen—Sales were noticed at \$60, 72, 80, 120, and \$100.

Cows and Calves—Sales at \$18, 26 50, 31, 35 and 50.

Sheep—Sales unknown.

Swine—7 for sows and 8 for barrows.

FANEUIL HALL VEGETABLE MARKET,

WEDNESDAY, JUNE 10, 1835.

Asparagus 6 cents per bunch—Radishes 3 cents per bunch—Lettuce 3 cents per head—Greens from 25 to 50 cents per bushel—Rhubarb 8 cents per lb.—Onions 6½ cents per bunch—Cucumbers from 12½ to 17 cents apiece.

PROSPECTUS.

Fessenden's Silk Manual, and Practical Farmer devoted to Agriculture, Rural Economy and the Culture of Silk. Published monthly at fifty cents per annum.

This is the title, and these the conditions of a work intended to embrace the subjects of AGRICULTURE and SILK CULTURE. It will contain, chiefly, articles on Practical Farming and Rural Economy, selected from the Weekly New England Farmer, and therefore intended for those who are not subscribers for that work.

We hope and believe that the culture of Silk, in some if not in all its branches, will eventually become the employment of a portion of the family of every farmer; and not only be made a source of considerable profit to the individuals engaged in this *fine art* but a great *national benefit*; not only save *millions* to the United States now sent out of the country for the *importation* of this useful as well as elegant article, but become a source of national income by its *exportations*. There is a certainty of a sale for this article, as the wants and the wishes of the wearers and consumers will increase with the copiousness and facilities of the supplies. The amount now consumed in the country may be in some degree estimated by reference to the value of the raw Silk now imported, which as it appears by official documents, exceeds TEN MILLIONS OF DOLLARS, annually.

In connexion with subjects relating to Agriculture the Practical Farmer will contain the experiments and opinions of cultivators engaged in the growing of Mulberry trees, as well as the manufacture of Silk; avoiding such theories and speculations as might probably mislead, or be misunderstood by those who are practically concerned in Silk manufacture. And we would respectfully solicit communications from those who are or may be engaged in silk culture, to enrich the pages of our SILK MANUAL.

Postmasters and others who may be disposed to assist us in obtaining subscribers, will please to retain 10 per cent of the money which they may receive for subscriptions; and the aid of all who are friendly to the objects of our periodical is respectfully solicited.

GEORGE C. BARRETT, *Publisher.*

FARM FOR SALE OR EXCHANGE.

An excellent Farm containing 70 acres, situated in Marlborough, Mass., with a house and barn thereon, for sale, or would be exchanged for property in the city of Boston. For terms and particulars inquire of G. C. BARRETT at this office, or N. B. PROCTOR, Esq. of said Marlborough. 6m.

SILK COCOONS WANTED.

The subscriber, encouraged by the late act of the Legislature to reel and throw American Silk, wishes to purchase at the Agricultural Warehouse in Boston, Silk Cocoons, and will pay \$3 per bushel for the best, and in proportion for poorer ones. [m6] G. C. BARRETT.

FRESH WHITE MULBERRY SEED.

Just received at the New England Seed Store, 51 & 52 North Market street,

A quantity of fresh and genuine White Mulberry-seed, from one of the greatest Mulberry Orchards in Connecticut, warranted new and good, directions accompanying each package. June 14 1834. GEO. C. BARRETT.

GROUND PLASTER,

From the Lubec Manufacturing Co. in casks of 500 lb each, constantly on hand and for sale by GEO. CLARK CO. No. 9, T Wharf. april 8.

MORUS MULTICAULIS.

Trees of the above new variety of the Mulberry for sale by the subscriber at \$40 per hundred, \$5 per dozen, and 50 cts each, being about six feet high. Orders solicited. Feb. 13. GEO. C. BARRETT.

TO NURSERYMEN.

The subscriber wishes to relinquish the charge of his extensive Nurseries to a tenant, or share it with a competent associate. A green house is contemplated as an appendage to the establishment. Worcester, March 16, 1835. O. FISKE.

FLOWER SEEDS.

An extensive collection of splendid Annual, Biennial and Perennial Flower Seeds, comprising some new and choice varieties, for sale by GEO. C. BARRETT. april 22.

SILVER FIRS, &c.

WILLIAM MANN of Bangor, Me. will execute at short notice orders for Silver Firs, Evergreens, &c. well packed and in good order. april 8.

TREES FOR SALE,

AT W. BUCKMINSTER'S Nursery, Framingham:—Apple trees, Cherry trees, Pear trees, Peach trees, Rock maple and Larch trees.

Also, Isabella Grape Vines, all of the first quality, at customary prices. * march 4.

COMPLETE SET OF THE FARMER.

For sale at this office, one complete set of the New England Farmer, comprising twelve volumes, neatly and well bound, and perfect. Price \$3 25 per volume, *cash.* Feb. 13.

4000 APPLE TREES

For sale by the subscriber, at Fresh Pond, in Cambridge, consisting of Baldwins, Russetts, Porters, Rivers, Siberian Crabs, and Blue Pearmains. The trees are four years from the bud and are probably the best in Massachusetts.

JONAS WYETH.

Cambridge. April 3.

VALUABLE WORK ON AGRICULTURE.

This Day published by GEO. C. BARRETT, THE COMPLETE FARMER AND RURAL ECONOMIST. By T. G. FESSENDEN. Second edition, revised and improved by the Author, with considerable additions.

The first edition was published last season, and the sale was rapid beyond precedent for a work of this kind. The present improved and stereotyped impression has still higher recommendations to public patronage, and cannot fail to prove still more useful to the community of cultivators.

This work has met with decided and universal approbation from the most competent judges. Among the written and printed commendatory notices are those of the Hon. JOHN LOWELL and Rev. HENRY COLMAN. The Editors of the New York Farmer, the New England Magazine, the Maine Farmer, Loudon's Gardener's Magazine, &c. have given favorable critiques of the Complete Farmer. We shall subjoin Mr Lowell's notice, and propose in some future number to publish those of the other gentlemen who have honored the work with their approbation.

"Roxbury, April 6, 1835.

"Having perused with attention the Complete Farmer and Rural Economist, by Thomas G. Fessenden, Esq. in its first edition, and having recently revised it at his request, preparatory to a second edition, I am of opinion that it is a valuable compendium and useful work. Those who know that the science of Agriculture is so extensive as to fill twelve quarto volumes in the celebrated French work of the Abbe Rozier, and a space not less in English works, will not expect in such an abridgement full details in any one branch of that extensive and varied art. But I know of no abridged work in the French or English languages which conveys more instruction in so small a compass than this work of Mr Fessenden.

mb JOHN LOWELL."

PLEASANT AND VALUABLE RESIDENCE FOR SALE.

SITUATED in Dorchester on the Brushhill turnpike, two miles from Roxbury street, containing 16 acres of excellent land with a mansion house, farm house, two barns and outhouses thereon, having a garden of one acre containing valuable fruits &c. The situation is unrivalled, commanding a most extensive prospect of the harbor and of the country back.

The houses are in complete repair and the whole farm under a good state of cultivation, with a good orchard of excellent fruit. For terms and particulars inquire of Messrs LOT WHEELRIGHT & SON, 46 Central Wharf, GEORGE C. BARRETT at this office, or JOSIAH WILSON on the premises.

LIGHTNING CONDUCTORS.

DR KING informs his friends and the public that he continues to prepare and affix to buildings his improved Lightning Conductors. They are approved by all practical and well informed Electricians, in affording superior protection against Lightning to the old form. Gentlemen in want of Lightning Conductors are invited to call at his rooms, No. 54 Cornhill, Boston, where they may be satisfied of the superior effects of his Rods, by illustration—where also may be had, Plate and Cylinder Electrical Machines, Galvanic Batteries and their apparatus—all warranted of the best workmanship and superior power. Prices reasonable, for cash or approved credit. may 20.

DISHLEY SHEEP.

To be sold at AUCTION at BRIGHTON, on Monday June 22, at 12 o'clock M.—

15 ewes and 2 ewe lambs,
4 bucks and 3 ram lambs.

The old ones were expressly procured for the subscriber by R. G. Newmarch, Esq. of Newcastle-upon-Tyne, and were obtained from the flocks of Mr I. Bates and Mr Robert Curry celebrated breeders in Northumberland, E. They have been kept entirely separate from any other sheep, and warranted pure blood.

ENOCH SILSBY,
June 3. 5t West Bradford, Ms.

SEED CHENANGO POTATOES.

500 bushels superior quality for planting, from Penobscot river, for sale by G. CURTIS, No. 104 Faneuil Hall Market. may 20.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES,	barrel	3 50	5 00
BEANS, white,	bushel	1 62	2 50
BEEF, mess, (new)	barrel	13 00	13 50
Cargo, No. 1.	"	11 50	12 00
prime,	"	9 00	9 50
BEEFWAX, (American)	pound	20	22
BUTTER inspected, No. 1.	"	16	10
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	40	45
southern, geese,	"	35	39
FLAX, American,	"	10	11
FLAXSEED,	bushel	1 33	1 37
FLOUR, Genesee, cash	barrel	6 50	6 62
Baltimore, Howard street,	"	6 50	6 75
Baltimore, wharf,	"	6 37	6 50
Alexandria,	"	93	95
GRAIN, Corn, northern yellow	bushel	87	88
southern yellow	"	85	87
white,	"	95	1 00
Rye, northern,	"	52	55
Barley,	"	19 50	21 00
Oats, northern, (prime)	"	15 00	18 00
HAY, best English,	ton	16 00	18 00
eastern screwed,	"	37	42
hard pressed,	"	13	14
HONEY,	gallon	11	12
HOPS, 1st quality	pound	9	10
2d quality	"	19	20
LARD, Boston, 1st sort,	"	12	14
southern, 1st sort,	"	16	18
LEATHER, slaughter, sole,	"	18	20
do. upper,	"	27	29
dry hide, sole,	"	25	27
do. upper,	"	1 00	1 05
Philadelphia, sole,	"	21 00	22 00
Baltimore, sole,	"	16 00	16 50
LIME, best sort,	cask	2 25	2 37
PORK, Mass. inspect. extra clear,	barrel	75	87
Navy, mess,	"	8	9
bone, middlings,	"	25	03
SEEDS, Herd's Grass,	bushel	2 00	3 00
Red Top,	"	7 50	8 00
Red Clover, northern,	pound	70	85
White Dutch Honeysuckle,	"	60	65
SILK Cocoons, (American)	bushel	45	50
TALLOW, tried,	cwt.	30	33
Wool, prime, or Saxony Fleeces,	pound	25	30
American, full blood, washed,	"	35	40
do. 3-4ths do.	"	38	60
do. 1-2 do.	"	60	65
do. 1-4 and common	"	45	50
Native washed	"	40	45
Northern pulled { Pulled superfine,	"	38	60
{ 1st Lambs,	"	60	65
{ 2d do.	"	45	50
{ 3d do.	"	30	33
{ 1st Spinning,	"	25	30
Southern pulled wool is generally 5 cts. less per lb.	"	35	40

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	12	13
southern,	"	7 1/2	8
PORK, whole hogs,	"	6	7
POULTRY,	"	10	14
BUTTER, (tub)	"	20	22
lump	"	24	28
EGGS,	dozen	15	16
POTATOES,	bushel	50	55
CIDER,	barrel	3 00	3 50

FESSENDEN'S

SILK MANUAL,

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. 1.

BOSTON, JULY, 1835.

NO. 3.

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T. G. FESSENDEN—EDITOR.

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Postmasters and Agents allowed 10 per cent on all subscribers.

BOSTON, JULY, 1835.

FACTS AND OBSERVATIONS RELATIVE TO THE CULTURE OF SILK.

The following extract from the Journal of a Board for the extension of the culture of silk, connected with the Agricultural Society of Bavaria, contains ideas which may prove useful to associations combined for similar purposes in the United States:

After reading of the resolutions and the list of the members of the new Board, the Counsellor of State, M. de Haggi, spoke in substance as follows:

"GENTLEMEN—The resolutions which have just been read explain the end for which you have convened. It is not less than to procure to your country an important branch of industry, known by the name of culture of silk. Like the Greeks, Italians and French we wish to call silk culture into existence. The culture of silk will be an incidental business, the secondary work of children, paupers and old people. Encouraged by the example of Greece, Italy and France we wish to trust it to the fair hands of ladies, who could by way of amusement, and without any expense, obtain within six weeks, a most elegant material for the ornament of their persons and of their apartments.

"The whole enterprize requires nothing further than to feed the silk worms in the spring with mulberry leaves; a care not greater, but surely

more useful, than the feeding of dogs, birds, and cats; to keep them clean, and to grant them a little space in a room to spin their silk. These are the means by which the cocoons are obtained, and these furnish again eggs: and here ends the whole culture: for the cocoons themselves are articles of commerce.

"The business of the board is for the present: 1. to attend to the plantation of mulberry trees; 2. to procure silk worms: 3, and lastly, to guide in the use of these means. Only after these three preliminaries have been attended to begins the first chapter of fabrication."

Mulberry must not be planted separate along the street, exposed to dust, or to northerly winds, nor in a marshy soil; but on the contrary in a sheltered place, with an exposure to the sun. Cobb's Manual asserts that the white mulberry has been found superior to the purple or native red. Rush's report enumerates seven varieties of the red, and says that "the leaves of the native red mulberry tree agree perfectly with silk-worms, and yield very good silk, is a fact so well established by the experience of more than a century, that to doubt it would amount to an absurdity. It appears however, that the leaves do not suit the constitution of French worms and the author [Mr De-longchamps] of the experiment, which he made to satisfy himself on this point, therefore, decides against the fitness of the tree for the food of the insects."

"The roots of the mulberry tree strike very, deep into the ground, so that the surface not being impoverished as it is by many trees, whose roots are found more in the upper soil, other kinds of cultivation may be prosecuted around it. Neither its shade nor the droppings of rain from its leaves is considered prejudicial to plants growing beneath.

Moist lands in valleys and near rivers induce a very rapid growth in the trees; but their leaves contain in such situations, too much watery matter, and though eaten voraciously are hurtful to the worms from their corporative want of nourishment. The labors of the insect are also delayed, and the quality of their produce injured, by the weakness of constitution resulting from this cause. Trees in dry soils give fewer leaves, but any deficiency in their quantity is amply compensated by the greater nutriment which they afford and as a necessary consequence by the superior quality of the silk produced."—*Lardner's Cabinet Cyclopaedia*.

Extra food for silk worms.—Mr Loudon mentions that M. Bonafous, an experienced cultivator of silk worms found that "dandelions sustained them until the fourth change, when the leaves of the mulberry were substituted." If this plant should answer in the United States the fact is important, as it is the first vegetable that appears in spring. Various works, during the last thirty years have repeated the following statement, viz: that Dr Bellardi, of Turin, after a number of experiments, found that young worms eat dried mulberry leaves with avidity. The leaves must be collected about the end of autumn before frosts and in dry weather, and at a time when the heat is greatest; then dried in the sun, and laid up in a dry place, after they have been reduced to powder. When given to the worms, this powder should be slightly moistened with water, and a parcel of it placed before the worms. This practice, according to Du Halde, is pursued in China, with this difference, that the leaves are merely kept in earthen jars.

The writer wishes it to be distinctly understood that the above substitutes for the proper food of silk worms ought only to be used when this cannot be had. Due attention except in a very late spring, will always enable us to accommodate the hatching of the worms to the vegetation of the mulberry tree.—*Rush's Report*.

GRASS—Farmers have feared that, in consequence of the small quantity of rain which has fallen in the month of June, grass would be very light indeed. We learn that in the upper part of the county, rain has fallen plentifully for the last two days, and grass has

wonderfully thickened up at the bottom. There will be nearly an average crop of English hay, and as for meadows they never looked better. The brown worm that *cuts* off plants just below the surface of the ground has made sad havoc in the gardens this season; in many instances lopping whole beds of onions, beets, &c. cucumbers, squashes, and cabbages, in a single day. Who can tell of anything that will prevent the ravages of this worm? Corn looks finely.—*Yeoman's (Concord) Gaz.*

New Jersey has been peculiarly unfortunate in her agricultural prospects. Besides losing, by the severe winter, her celebrated orchards of the most delicious varieties of peach and eling, her corn and potato fields in several parts of the state, are now attacked with the grub worm in a countless number, proving extremely destructive.

PEPPER.—Mr Reynolds, in his "Voyage Round the World," gives some account of the culture of Pepper, the principal article of trade at Sumatra. He says it grows on a vine or creeping plant, running up on poles, with leaves of a dark green, heart-shaped, pointed, and not poignant to the taste. The blossom is small and white, and the fruit hangs in bunches or clusters, resembling those of the currant bush, but larger and less pliant. It is from four to five months in coming to maturity. The berries are at first green, and gradually become a bright red when ripe, and soon fall off, if not gathered. "All the bunches on the stems do not become ripe at the same time, and the natives frequently go through their little farms with small baskets, plucking off each bunch as they become ripe. When gathered it is spread out on mats, or clean places, to dry. That which has been gathered at a proper age will shrink least; while those skilled in the trade will readily distinguish that which has been plucked prematurely, by rubbing it in the hand, when it will impart much dust, and even crumble to pieces."

The poles are about six feet apart, probably resembling one of our hop-fields. The culture of 1000 such plants or hills, is occupation sufficient for a man and his wife—500 are usually allotted to a single person.

The weather thus far has been remarkably cool. Our thermometer at 1-2 past 5 this morning stood at 57 1-2, which is a rare occurrence for the first of July. The season has been hitherto quite unfavorable to travelling, and we presume the watering places have felt its unprofitable influence. A friend just from the Virginia Springs, tells us that the visitors were obliged to have fires and to wear great coats all the time he was there.—*Phil. Gazette, July 1*.

ON THE PRESERVATION OF POSTS, SILLS, &c.

We have endeavored on several occasions, to call the attention of our readers to the best means of preserving posts, sills, and other timbers, from decay. The *easiest method* is to fell the trees at the right time—not of the moon, but of the year. If this be done, the value of the wood will be several times greater than if cut when the sap is rising in the spring. This is a fact well worth knowing and remembering; but it is not the only fact connected with this business, that ought to be known and remembered. In addition to the durability added in this way, we may add at least as much more by the judicious application of *salt* or *lime* and for statements of their efficacy, we refer to pages 80, 155, 145, and 167, of our last volume.

These substances were applied to prevent the fermentation; but the former, common salt, has also been used as a preventive against the *dry rot*. This, which has proved so remarkably destructive to timbers employed in both civil and naval architecture, is produced by several species of fungi, belonging also to the different genera, such as *Merulius lachrymans* and *Ditiola radicata*; and though we have heard no complaint on this subject in our own section of the country, we presume that some extracts from a late article by WILLIAM PATTERSON, an eminent merchant of Baltimore, will be found interesting:

"knew of a fine vessel built for a Charleston packet, with so much care, that she required no caulking or repairs for *four years*, at the end of that time, when she was carried into the dock to be caulked, she was found to be so *totally destroyed by the dry rot*, as to be unworthy of repair, and was broken up.

"The year before the breaking out of the late war with Great Britain, commenced building at fine vessel, and had her frame raised, her bends and bottom planked, when I determined to proceed no further. I erected a shed over the vessel, under which she remained *four years* before I concluded to finish her. All possible care was taken of her; yet some of the large pieces of timber were found defective, especially the transoms; timbers 18 inches square were found to be *entirely destroyed by the dry rot*. It was owing to this circumstance that I resorted to the plan of *boring the large timbers and filling the holes with salt*.

"I adopted the following plan with all the vessels that I have built within a period of more than sixty years. While building, when the bends and bottom planks are on, and before delling I have caused three sets of stoppers to be placed fore and aft between all the timbers, to keep the *salt* in its place. The *first* tier of stoppers are placed at the floor heads; the *second* immediately below the lower deck beams; and the *third* be-

tween decks, just above the air streak, common in all double decked vessels. Air streaks are left above the first and second tiers of stoppers, for the purpose of adding more salt as the previous supplies of that article settle or are dissolved. Just before finishing the ceiling of the vessel, *the salt is filled in among all the timbers*, from the lowest tier of stoppers to the upper deck—taking care that the salt in the upper tier is well rammed down; *if wetted, so much the better*.

"In all my experience, *I have never found a defective timber* in vessels thus prepared, and thus taken care of; and I am persuaded that the *dry rot* may be entirely prevented, by adopting the above precautions. As a proof of the good effects of the above mode, I will add, that I have two vessels now running which are perfectly sound and trustworthy; one of them is *thirtyone years old*, and the other *twentyfive*; and the only repairs that have been given to their hulls, were the renewal of the waist planks of both, and the quarter deck of one of them. This was not owing to the decay of the plank, but to the circumstance of its being fastened with iron; the corrosion of the iron caused openings where it passed through the wood."—*Genesee Farmer*.

MAKING CLOVER HAY—IN COCKS.

Nothing is so hard to combat as the prejudice of armers, who think they *can learn nothing* in their business. We have often recommended curing clover hay in cocks, as the means of doubling the value of this kind of hay, besides lessening the expense of curing it. Many good farmers and intelligent men, have ridiculed the process, because it run counter to their practice, and was what they could not reconcile to their idea of good management. But they would never make the trial; if they had done so, they would have seen that they were wrong, and we right. We beg leave here to say, that in many districts of Great Britain, spreading hay from the swath, or tedding it, is going wholly out of practice, as causing unnecessary labor, and as diminishing the value of the hay. But they are not blessed with our ordinary sunshine and heat in the haying season. The hay curing process, with them is a business of some days, on account of their comparatively cool climate and humid atmosphere. But with us when the grass is matured, and thin, and the weather good, it is often the business of a day. But this cannot be the case with us with early-mown hay, particularly where clover abounds. The grass is then full of juices, and the succulent stalks of the clover require time, as well as sunshine to part with their moisture. Spread and exposed to a hot sun, the leaves, blossoms, and exteriors of the stems soon dry, but in drying the exterior of the stems become indurated, and refuse like

wood painted when green, to part with the interior moisture. The consequence is, the grass must either be housed in this half-cured condition, and spoil in the mow, or if the curing process is completed, so as to prevent damage, the leaves and blossoms, which constitute the best parts of the hay, are over dried, crumble and are lost. Cured in cock, every part of the grass, whether the leaves or the thick stalks, dries alike, and is alike preserved, and the evaporation of moisture goes on I believe in even wet weather; for a partial, though in no wise a prejudicial fermentation takes place, and the rarified air which it generates, being specifically lighter than the atmosphere, is constantly passing off.

We have been induced to these remarks, at this untimely season, in consequence of finding in the Farmer and Gardener, an agricultural paper published at Baltimore, a communication from John Smith, fully confirming the utility of our recommendation and long practice. It would seem that Mr Smith was led to make the experiment rather from necessity than from choice. But we will let him tell his own story.

"It will perhaps be recollected," he says, "by all attentive agricultural readers of that paper (the American Farmer) that it was recommended to farmers to put their hay, in its green state, or as soon as cut, into small cocks, and cure it by sweating.

"When I commenced cutting my clover hay the present season, the prospect for favorable weather was flattering, but in a short time it changed, and it became evident we should have a wet spell. I then dropped the scythes and put all hands to putting up the grass (then perfectly green but exempt from external wet) into cocks of about 200 pounds, cured hay, building them compact and high, to avoid the introduction of rain as much as possible. Rain came on before secured all the cut grass, but the next day was fair, and I succeeded, by unremitting attention in getting the water dried out of the remainder, and put it up in the same way. *It continued rainy TEN DAYS*, and afforded no opportunity to cure in the sun; the cocks were examined daily, by running the hand and arm into them, and contrary to all expectation, gave no indications of fermentation. At the end of ten days the weather became fair, the cocks were opened and found to be in a perfectly sound condition, except so far as the rain had penetrated, and the external wetting alone, in my opinion, made it necessary to open it at all. Tell farmers they need not fear losing their hay on account of unfavorable weather at harvest. I have never seen worse weather in hay harvest, and I saved mine entirely well. IT IS MOST EXCELLENT HAY."

[For the New England Farmer.]

THOMAS G. FESSENDEN, Esq.

The main object of these lines is to obtain information relative to the culture and uses of lucerne (or French clover), but before I state the particulars which I wish to ascertain, I will mention a few facts relative to another subject.

About the year 1827-8 there was much written and said on the culture of the White mulberry tree, and the manufacture of silk, and ever since the subject has been agitated and is worthy the attention which has been given to it. I obtained in the year 1829, I think, one ounce of mulberry seeds, sowed them about the middle of May, if I mistake not. They came up well, and grew from 12 to 20 inches the same season. The next season I transplanted them, placing them in rows about four feet apart, 8 to 12 inches in the row, which was rather too high. They ought to have been 12 to 16 inches at least, if calculated to stand two or three years. The land on which I put the most of my trees proved to be dry and poor; at any rate they grew but very little after the first and second year. I feel confident that the land was too poor, because I had a few taken from the same seed bed, which grew from 6 to 9 feet in one year; whereas those in my nursery grew only from four to six feet in five years. They were stunted, but I hope they will do some good, as I sold some at a low price, and gave away several hundred for the purpose of inoculating with the Chinese mulberry, or *Morus Multicaulis*. I state these facts to show that the mulberry tree will grow on any kind of land, but much the best on good. I sowed some seed since the above mentioned, and transplanted them on good land, which have done remarkably well. I will here state that I kept a few silk worms, one season, just for an experiment, which succeeded well. I found nothing difficult about attending them, which some might be led to believe from reading the minute and intricate manuals or details given by some foreign authors. In fact it is an easy, healthy and good business, which almost any farmer can take hold of. At any rate there is nothing difficult in cultivating the trees, and rearing the worms, and if you get the cocoons, they will fetch a good price without any other trouble than carrying them to market.

Several years ago I obtained five pounds of lucerne seed, and sowed it on about forty rods of ground, which was light, dry, and withal poor; as some said it would grow on poor land I thought I would try it. I put on about four or five tons of manure, and spread and harrowed it in. The seeds came up well, but the most of it died before fall, except where the manure heaps were, where it grew well and continued several years, until I broke it up. Several of my neighbors tried it

without any better success. But to come to the topic on which I first intended to write.

I bought of Mr George C. Barrett one pound of lucerne seed last spring and sowed it the 13th of May on about four or five rods of land. The ground on which I sowed the seed is situated in front of my house, has been planted perhaps 30 or 40 years, I know not how long, ever since my remembrance, to beets, carrots, onions, &c. I ploughed it two or three weeks before I sowed it, and on the same day I ploughed it again, and after ploughing dug it all over, and broke the lumps very fine, then raked it two or three times, for I was determined there should be nothing wanting on my part to ensure success. After getting the ground mellowed and every lump and stone off, that was as large as a pigeon's egg, I sowed the seed broad cast, taking great care to have it sowed even. I then raked the ground over two or three times and left it. In five or six days from the time the seed was sowed it was up, and it has grown so fast and handsome that I feel quite proud of it. It is now from 10 to 16 inches high, growing rapidly, the ground completely covered. I sowed it without any other kind of seed. The sprigs or stalks which I send you are fair specimens of the whole. I consider it a very rapid growth or I should not mention it—only 39 days since the seed was sowed.

I wish that some experienced person, who is acquainted with this kind of grass would tell me how to proceed, whether I had best cut it while in blossom, or not cut it at all this season—also whether I had better put on a dressing of manure this fall or not. If this does as well as it promises now, I think of sowing more another year, therefore I want to know what use it can be put to, to the best advantage, and whether any other grass seed had best be sowed with it, and what kind if any. In fact any information relative to the above grass would be gratefully received. I presume I could get much information in the above subject from some of the former volumes of the *New England Farmer*, but my numbers are incomplete; and I think something on the above named grass would be interesting to others as well as myself.

Truly your humble and obliged servant,

JAMES LEONARD.

Taunton, June 22, 1835.

By the Editor.—With regard to the mulberry, from Mr Leonard's statement, as well as from some others which have been given us verbally, we are led to believe that some writers on silk culture have published opinions which may mislead. Mr Rush observes "All the practical writers agree that the proper soils for the mulberry tree are dry, sandy, or stony: the more stony

the better, provided the roots of the trees can penetrate among them. The situation should be high: low, rich and moist land never produce nourishing leaves, however vigorously the tree may grow. They are always found to be too watery." Mr Cobb, however, and some other practical cultivators, with whom we have conversed on this subject, tell us that a soil rich, warm and mixed with much mould is most proper for mulberry trees; and where it is intended to strip the trees frequently for feeding silk worms, doubtless the soil should be of good quality, to enable them to reproduce their foliage without much injury from its deprivation.

With regard to lucerne, we have but little knowledge, except what is derived from books. English writers tell us that the first year's crop is not so large as the subsequent ones, and it retains its vegetative vigor about ten years, when it should be ploughed in; and the soil will be found improved for other uses. "There is one quality, in particular, which recommends the grass for fresh fodder, to farmers in the vicinity of market towns. If mowed as often as the growth will fill the scythe, as it should be for this purpose, it will continue to produce a succession till very late in the season. For fattening bullocks and pasturing swine this grass may be very advantageously used. When it is made into hay let it be cut while quite green, and without much shaking, as the leaves fall off considerably when dry. A little salt added to it when laid in the mow, would be a great improvement."—*Young's Farmer's Calendar*.

With regard to the proper time for cutting lucerne, it seems that in England it is much used for soiling, and cut whenever it is large enough for a good crop, or as Mr Young expresses it, whenever it will "fill the scythe." The Hon. J. Lowell, of Roxbury has been a successful as well as scientific cultivator of this grass for 12 or 14 years. We will here give an abstract of some of his observations on this subject. One piece of land cultivated by Mr Lowell was sown with tall meadow oat grass, in the proportion of one bushel of oat grass to six pounds of lucerne.

"The first crop was very great; it was difficult to decide in this first crop, which excelled, the lucerne or the oat grass. But in every succeeding crop the lucerne predominated to so great a degree it seemed to be the only crop. This was owing to the greater breadth of its leaves. *I never cut it till it flowered.* I made four crops last summer of excellent hay from it, amounting in all to six tons and a half to an acre, and after that it furnished a rich supply of after feed. This crop was seen and admired by a great number of intelligent farmers.

"Having been convinced that it was suited to my soil, I last year laid down an acre and a quar-

ter for a pasture, being satisfied that it is admirably adapted to that purpose. I laid it down with barley, but it grew so fast that I was obliged to cut the barley stalks very short, or else I should not have been able to thresh it, so thick and succulent was the lucerne. I cut over this field once and then depastured it.

"I mention this fact as a remarkable one, because the French writers speak of it as a *very rare* occurrence even in *their* climate that it will bear the scythe the first year."

With regard to top dressing for lucerne, we see nothing in the books. Mr Lowell says, "I have always used gypsum, and perhaps owe my success to that valuable stimulant. I have employed two bushels to the acre."

CULTURE OF SILK IN TURKEY.

I offer to the public extracts of a letter written recently by Charles Rhind, Esq. to a gentleman in this city. It is replete with interesting information on the mulberry and the culture of silk. Mr Rhind is well acquainted with Turkey; he was the principal negotiator of our treaty with the Sultan, and is a gentleman possessing a highly cultivated mind, united to acuteness of observation. He says "In that country (Turkey) the production of silk is confined to cities or the larger towns, in the vicinity of which the mulberry tree is chiefly cultivated; those trees belong to the farmers or proprietors of the ground, who do not rear the worm themselves, but during the crop-season, the leaves are collected by them daily and carried into the city and sold in the market in the same manner as fruit and vegetables, in such quantities as purchasers may require. At the commencement of the season almost every family clear out all the rooms in the house except one in which they live during the crop season: the worms being produced they purchase a quantity of leaves and strew them over the floor of each room, leaving a small space next the wall, that they may walk round and distribute the leaves; they then place the worms on the leaves, who readily attack them, and then daily throw on such a quantity as experience teaches them will supply the want of the worms, and this they repeat until the worms are ready to rise and wind the cocoon, without ever removing the offal or stems, and frequently the pile of collected matter will reach the height of three or four feet. When the worms show symptoms of winding they plant branches and brushes immediately over the collected mass, the worms rise on these, the cocoons are formed and collected, and the rooms are then cleared out and the reeling is commenced. This manipulation is performed in the most clumsy manner and with the rudest machinery imaginable, notwithstanding which they produce the

finest silk in the world. For upwards of thirty years I have been of opinion that the culture of silk would in time, be the most important of our agricultural productions next to cotton. When last in Turkey, by means of an American gentleman who is resident in Brusa, I obtained a quantity of the genuine seed of the *Morus alba* (white mulberry) of Brusa, the great silk district situated at the foot of Mount Olympus, (where the best silk is produced,) the climate of which resembles our own, being almost in the latitude of New York. The seeds which I brought have flourished here, and in three years more will produce fruit sufficient to supply the state, and probably the United States with seed from a native stock of the present blood, as a jockey would term it, for I am of opinion that the *Morus multicaulis*, Chinese mulberry, is too delicate for our climate, although it might succeed in Florida; but those I brought we know to be genuine and hardy, and they will flourish in our latitude."

Remarks—This information of Mr Rhind's is important in several respects. It is highly probable that the mulberry seed which we may soon expect from him, will produce trees more genial to our climate, and better adapted to the worm, than those now in this country. The Turkish method of rearing the worm in cities and country villages, is worthy of our imitation and adoption. How many persons there are unemployed who might in this way earn large sums of money annually, and thus live in comparative comfort. It would be very profitable to farmers living near the cities and villages, to cultivate the mulberry and supply the market. The Turkish method of rearing the worm is disgustingly filthy, and ought to be avoided, the worms should be placed on shelves properly constructed, in tiers rising from two to eight feet, filling all parts of a room except space enough to allow the attendants to feed them and remove the offal and filth which when accumulated, must injure the worm. Mr Rhind proves the fact that our climate is adapted to the production of silk of a superior quality, and he very justly appreciates the high importance of the culture of silk, and is not mistaken in considering it the most important of our productions next to cotton, and I doubt much whether he need have excepted cotton itself.—*Correspondent of the Albany Journal.*

COUGHS AND COLDS.—Horse-radish cut into small pieces and chewed in the mouth is an excellent remedy for hoarseness, coughs, colds, and cases of incipient consumption.—*Farmer's Gazette*

A rail road is projected from Paris to Calais, so that one may breakfast in Paris, and dine in London.

CULTURE OF SILK.

From the result of several years' experience, I venture to assert, that the culture of silk is one of the most lucrative branches of agriculture, and is very light and pleasant employment. Nearly all the labor of feeding and tending the worms may be performed by small children, that are useless at most other employments. The reeling, twisting, coloring, and manufacturing sewing silk is a simple process, and as easily performed as wool or flax. This may be demonstrated by the small specimen I send you, which was wrought upon a common reel and wheel by one who had not the advantage of experience, and who had never seen a cocoon before. One hundred pounds of leaves will produce one pound of sewing silk, and a child from nine to twelve years of age, will gather seventy-five pounds of leaves in a day, this is called a day's work for a child in Connecticut. At this rate, the same child will feed as many worms as will produce twenty-seven pounds of reeled silk in six weeks, worth from four to seven dollars per pound, the price being regulated by the good or bad reeling. The reeling of this quantity will occupy the attention of a woman three weeks, and will be produced from a half acre of land. According to this calculation, which I think is not exaggerated, two children from nine to twelve years old, in six weeks, and one woman in three weeks, from an acre of land, will make fifty-four pounds of reeled silk, worth say five dollars per pound, which amounts to two hundred and seventy dollars. I presume that by planting one field with the Italian mulberry, more may be made annually from them, by feeding silk worms with the leaves, than can be made by the usual mode of farming on a plantation of one hundred acres. We have long been in the habit of sending vast amounts to the Indies, and Europe, to purchase silk, and at the same time of sending the widows and orphans of our country, who are left in pecuniary embarrassments, to alms houses. I think every man who feels an interest in the prosperity of this country, should lend his assistance to put a stop to such proceedings, and thus contribute his mite to a great national good. I would, therefore advise with humble deference, that every farmer procure trees, which may be planted by walls, on side hills, and by the side of high ways and byways, in lands too stony to till, or too barren to produce;—they should occupy the places of useless shrubs and forest trees, as Lombardy and other poplars, paper mulberry, &c., the Italian mulberry being more ornamental than any of them, of speedy growth, and very tenacious of life. I have shown that the business may be attended to by women and children; consequently upwards of twelve millions of dollars may be saved in this country annually, without diminish-

ing in value our other products. The time of feeding worms is from the tenth of May, until about the twentieth of June, a season of the year when a barn is not much used, and by trial, the worms are found to produce as much silk and as good in a barn as in a Laboratory scientifically constructed. Many of the worms in New England are attended in barns, without the trouble of Thermometers or Barometers.

The Italian mulberry is of very speedy growth, and may be propagated so speedily that the manufacture of silk in this country may be commenced much sooner than has been anticipated. The genius and enterprise of our citizens is equal to the task of manufacturing silk superior to the imported; when once in operation their zeal and activity will enable them to compete with the world in the culture. I venture to assert, without fear of contradiction, that there is not a country on the globe having soil and climate so well adapted to the growth of the Italian mulberry, and constitution of the silk worm as the United States. The tenacity of life is indeed wonderful in those trees. I transplanted more than 8000 between the 4th and 28th of June last, and although so very late in the season, I think not 100 died. The tree is perfectly hardy, also in regard to heat and cold; among upwards of 300,000 seedling plants, I have not discovered one that has been injured by the severe frosts of the past winter, while nearly all my other trees have been more or less injured thereby. The Chinese *morus multicaulis* as well as many native trees are entirely killed.

What a proud day will that be for Pennsylvania, when her daughters will appear in silk of their own manufacture. I presume that day is not far distant.—*Penn. Reporter.*

A PROFITABLE CROP.—A Northampton gentleman planted last year a half-acre (costing twenty-five cents) of the *Morus Multicaulis*, or Chinese Mulberry. The seed occupied a few feet square of his garden, and the plants came up to the number of about two hundred and forty. For these plants he has repeatedly this season been offered twenty-five cents each. The principal reason of this, however, is that the seed originally procured of this species of mulberry has all been consumed, and there is not much probability that any more good seed can be procured from the same quarter; and some years, of course, must elapse before it can be procured from native trees. Other parcels of this seed have been obtained from China since the first was imported, but none of them have produced anything, having without doubt under the influence of the proverbial jealousy of the Chinese been subjected to some process, which, without affecting the appearance, destroyed the fructifying principle.—*Franklin Mer.*

SILK.

LISBON, MAY 5th, 1835.

To the Editor of the Silk Culturist.

SIR—I am much pleased, on perusing the first two numbers of your valuable little "MANUAL;" with the manner in which you have stated the probable advantages of the culture of silk to the farmers of America; and I wish to add a few words in confirmation of your statements.

I have manufactured silk, at Spitalfields, in London, twenty years; and am perfectly acquainted with the winding, warping, and weaving of plain silks, such as Sarcenets, Satins, Gros-de-Naples, Florentines, Pushes, and Velvets; or figured silks, such as Florets, Tobines, Tissues, and Damasks; all of which works require very different kinds of silk. In the last six months, I have woven many pounds of silk, of *American growth*, into silk stocks for Mr James Bottom; and I assure you, Sir, that I have seen many samples of American silk, far superior to the Bengal, China, and French silks, and nearly equal to the best Italian.

I am surprised that the farmers of America have so long neglected the culture of silk; it being so very profitable, and the climate being so well adapted to it. I have known Italian silk to be sold for a dollar an ounce, in England before it was manufactured; and the average price is about seven dollars a pound. At the present time, the most inferior kinds of manufactured silk, imported from England, France, and China, are being sold, in this country, for sixteen dollars a pound: and as the cost and fair profit of manufacturing cannot exceed seven dollars, it leaves the enormous price of nine dollars a pound for the raw silk, which price, the people of America are now paying to the people of Italy and France.

By reference to the statement of M. Carrier, in the first number of the "CULTURIST," I find that nearly all his silk, sold for nearly 6 dollars a pound; and, that on an acre of land, he realized two hundred and ninety dollars in a year. Now when we take into consideration the disadvantageous nature of the climate of France, compared to that of America, it appears to our view a mine of wealth for the farmers of this country.

In this letter, I have endeavored to show the advantages of the silk trade in an individual point of view; should you deem this worth insertion, I will, in my next letter, point out the advantages of the silk trade, to the community at large.

Yours, &c.

WILLIAM CARPENTER.

WHITE MULBERRY.—Our white mulberries some of which were set out last spring, and some the spring before, varying from two to four years old, have been killed more than we have ever known this kind of tree to be by any winter. The

trees are upon a thin gravelly loam, and were not protected in any way whatever.

CHINESE MULBERRY.—In order to test the hardiness of this species, we set out, last spring, six of them. They were one year old, from layers, and about two feet high. We set them in a cold clayey loam, where we knew the frost would heave very much, and without manure. They grew but little last summer. In the fall we wound some matting around one of them. One of them being broken down accidentally, we threw some dirt over it, the others we left as they were, to live or die. The result is the following. One of them we gave away to a friend quite early in the spring, without knowing whether it was dead or alive, and have not heard whether it is living or not. Two of the others were thrown almost entirely out of the ground, of course the upper roots were frozen, but the lower roots are alive yet, and may or may not come. Another one is starting about four inches above the ground, the one covered by a mat is killed down to the ground, and the one that was broken and covered by earth is putting out leaves from the eyes next to the earth that is over them, and which has not been removed. We think on the whole, from this experiment, they are as hardy and have done as well as the white mulberry would have done in the same circumstances.

A *dandolo* (Italian) mulberry, without protection one year old, was killed down to the ground and has not yet started.—*Maine Farmer*.

I was at old Fort-Hunter, on the Susquehannah, above Harrisburgh, in 1828. The highly respectable owner of this beautiful situation, Col. M'Allister, a gentleman of science and refined observation, treated my fellow travellers and myself with great courtesy, and showed us some household conveniences worthy of imitation, and among others, his Milk-house, Smoke-house and Clothes-line. I thought much of these, and have in part profited by my observation. That the readers of the Cultivator may profit also by these improvements, I will briefly detail them in part.

THE MILK-HOUSE was built in the northeast side of a slope, near the well, and not far from the mansion. It was composed of stout stone walls, and the roof, which rose six or eight feet above the surface of the ground, appeared to be covered with earth or tile, and was deeply shrouded with the scarlet trumpet creeper, (*Bignonia radicans*) then in splendid bloom. The interior of the house, principally under ground, was fitted up with cisterns, in which water stood nearly to the tops of the pans of milk, which were arranged in them. The house was entered by a flight of steps on the south, and there was a window on

the north, which could be opened or darkened at pleasure, to give ventilation. For want of a natural spring, which many Pennsylvanians consider almost indispensable in a milk-house, the water was conducted in a pipe from the well-pump, and after filling the cisterns to a certain height, passed off at the opposite side. The object was to obtain a cool temperature, in the heat of the summer, which greatly facilitates the separation of the cream from the milk, and this object was amply effected, with the labor of working occasionally at the well pump.

THE SMOKE-HOUSE was a wooden octagon building, perhaps 16 feet in diameter, perfectly tight, except the door way. The peculiarities of this building were, it was set a foot or more above the ground, and was perfectly dry, and bacon, hams, &c. were kept hanging around its walls all summer, without becoming damp or mouldy, or being injured by flies; and in the second place, no fire was admitted into the building, the smoke being conveyed into it through a tube from the outside, where it was generated in a stove.

THE CLOTHES-LINE we saw had been six years in use, without sensible injury, though it had remained all the time in the open air. It had always been wound up, upon a small windlass, as soon as the clothes had been taken from it, where it was protected from the rain by a roof. Several posts, with notches near their tops, were placed in a range upon the grass plat, upon which the line could be drawn and fastened in two minutes, and from which it could be loosened and wound up in as short a time. It is but a small affair, but such small affairs make a large aggregate in ordinary life. "Take care of the cents, and the dollars will take care of themselves."—*Cultivator*.

LOCUST.

An insect called the seventeen years locust, or technically *cicada septemdecim*, has made its appearance within a few days in the north part of this town. They appeared first in the orchard back of the house lately occupied by Gould Lewis, where they may be seen in great numbers, also in the garden of Reuel Danks, and on the bushes along the road between those two places. Many trees are entirely covered with them, as thick as plums ever are upon plum trees. In the heat of the day they are exceedingly musical, making the air resound with their melodies. They appeared in the same place 17 years ago this season.

The following is we believe a very true account of this insect. They emerge from the ground towards the end of April, and always in the night. On their first coming out they have the appearance of bugs without wings, but the back soon bursts and the perfect fly appears. They

begin to lay eggs usually about the last of May; these are deposited in close lines two inches long in the tender twigs of trees. As soon as the young attain their growth in the grub state they fall to the ground and make their way two or three feet below the surface, where they change to the form they have on coming from the ground. They appear about every 17 years, varying according to heat and other circumstances. They are in no way injurious to vegetables except what is done by the hole bored in the wood by the female to deposit her eggs. They are the favorite food of squirrels and many large birds. The Indians consider them a delicate food when fried. They have been used in New Jersey instead of grease for making soap. They never deposit their eggs in pine twigs of any kind.

We are informed that they have appeared in Suffield within a few days in great numbers.—*Westfield Herald*.

TO MAKE YANKEE BREAD. — Take two measures of Indian and one of rye meal, mix with milk or water, to the consistency of thick hasty pudding, and add yeast—bake in iron pans or iron kettles four or five hours. Eat with fresh butter or other food, and if while warm the better. Yankee bread is very good or very bad, according to the manner in which it is made. We commend it to dyspeptics. The Indian meal should be either bolted or sifted.

RHUBARB PIES. — Gather a bundle of the leaf stocks, *quantum sufficit*—cut off the leaf and peel the stalk of the thin epidermis—cut in quarter inch pieces, and lay them into the crust—cover well with sugar, and add nutmeg, orange peel and spice to taste. The flavor is equal, and many deem it preferable, to gooseberries. The pie-plant is perennial, herbaceous and very hardy. A dozen plants will afford a family a constant supply.

SPRUCE BEER.—Take three gallons of water, of blood warmth, three half pints of molasses, a table spoonful of essence of spruce, and the like quantity of ginger—mix well together, with a gill of yeast; let stand over night, and bottle in the morning. It will be in good condition to drink in twentyfour hours. It is a palatable, wholesome beverage.

MESSRS WINSHIPS' MOSS HOUSE.—One of the neatest things of the kind we have ever seen is the moss and thatch house, which has just been erected on the Winship Gardens at Brighton. It is small but neat, antique, (with a delicate interspersement of the Oriental taste) and delightful in its way. The roof is conical, and thatched with a thick layer of straw; the walls are sever-

al inches thick, entirely of moss: the windows are of gothic architecture, with beautifully stained and figured glass. The figured glass represents alternately scenes and characters in India, and sprigs and flowers, emblematical of Flora. A variety of honeysuckles are creeping over the outside. Inside, the window frames are set round with a great variety of beautiful shells. A sedate observing old gentleman, with his apt poetical quotation, occupies the wall encompassed by a shark's jaw, and notifies visitors that he shall keep a close eye over their greetings and note the stolen kisses from love's young lips. There is, too, the *snow owl*, with his glaring orbs, perched on the cross beam—he doesn't screech. The *old oaken chair*,—a present, and a valuable addition to the antiquated roughness and beauty of the place,—is not the least attractive ornament. It is an ample arm-chair wrought out of crooked limbs and branches of trees, in their natural state, singularly intertwined. The *edifice* and its arrangement have been prepared by Mr Murray, Messrs Winship's gardener, who has exhibited a great deal of taste in the thing.—*Bunker Hill Aurora*.

Locusts, the scourge of some parts of the land, have made their appearance in this vicinity. In the region of Mount Tom, a few miles south of us, they have just made their exit from crevices in the ground as "thick as blackberries." It is now about seventeen years since the eggs were deposited there and true to a proverb, they are "on hand" ready to serve their customers. The trees and shrubs are loaded with an exuberance of this new fruit and although the kind is not exactly what is wanted, yet we hear no complaints about a lack of quantity. Hogs and hens eat them and it is said that they make to a French palate, most excellent soup. There is considerable nutritious matter in them, their bodies being about the size of a walnut. They live upon vegetable matter and promise to take charge of all the surplus produce in the vicinity of Mount Tom. What with the busy hum of locusts and rattle of snakes, that elevation has *musical* as well as *stinging* attractions.—*Northampton Courier*.

LIQUID MANURES.

In the preceding volume of this work, page 134, there is a very interesting article on the propriety of using liquid manures for purposes of horticulture; a solution of soot and water is therein recommended, in the proportion of six quarts of the former to a hogshead of the latter.—This mixture has been found to exercise a most salutary influence on *Peas*, *Asparagus*, and a variety of other vegetables to which it has been applied. We do not doubt the fact stated, and would here observe that the *soap suds* made in a farmer's fam-

ily, which is mostly thrown away, is one of the most effective manures that can be applied to vegetables and flowers of all kinds. From an experience of several years, we can testify to its invigorating effects, and recommend its use with confidence. There are but few families, anywise extensive, who do not make a sufficient quantity of this article, in the course of the year, to keep a garden of tolerable size, not only in good condition, but rich enough to secure good crops of vegetables.—*Baltimore Farmer and Gardener*.

CURING BEEF AND HAMS.

The following recipe was brought from Ireland about 100 years since, and has been in use with general satisfaction ever since—that is, beef and hams cured by this rule are never salt burnt but remain juicy and tender for almost any length of time.—For a barrel or 200 lbs. of either—

Take 6 gallons of water,

12 lbs. of Salt,

4 ounces Saltpetre,

1½ gls. molasses, 12 lbs. coarse sugar.

This when dissolved and mixed cold, makes a brine for a barrel, which should be boiled over in June and skimmed, and when cold turned on the beef again. The beef should be handsomely cut in pieces, not less than four nor more than 12 lbs.—rubbed with fine salt and packed close, then the brine turned on. Hams should lie in this brine about three weeks before they are taken out to smoke; or if a pint of pyroligneous acid be added to the brine, smoking may be dispensed with.—*Ohio Farmer*.

SILK MANUFACTURE.—Mr Joseph Ripka, of this city, has given notice in the public papers, that he has a flourishing plantation, containing *ten* acres of mulberry trees, on the Point-no-Point road, and he is trying the experiment of raising silk worms on a large scale. As the attempt is one of importance to the community, and the process interesting to individuals, Mr R. has given notice that visitors anxious for information will be received by Mr John Ter Heven, on the premises and may receive from him full explanation of its process.—*U. S. Gazette*.

If men did but know what felicity dwells in the cottage of a virtuous poor man—how sound he sleeps—how quiet his breast—how composed his mind—how free from care—how easy his provision—how healthful his morning—how sober his night—how moist his mouth—how joyful his heart—they would never admire the noise—the diseases—the throng of passions, and the violence of unnatural appetites, which fill the houses of the luxurious, and the hearts of the ambitious.—*Lutheran Mag.*

[From the New England Farmer.]

NOTES BY THE WAY.—NO. 1.

MR EDITOR—Being a constant reader of your weekly sheet, and feeling a deep interest in everything which concerns the prosperity of the farmer, I always take pleasure in my pilgrimages through our smiling New England in inquiring about their welfare, the management of their farms, &c. —Perhaps this interest is increased from sundry reminiscences of many years spent in the labors of the farm,—and mayhap the recollection of “husking frolics and red ears,” “raisings,” “country sleigh rides and snow drifts,” and the many by-gone sports of the farmer boy still dwell on my mind’s eye, and cherish and renew my interest in the farmer. I find in my note book sundry sage reflections and ideas, which, (if you think they are worth the room,) are at your service for the columns of the Farmer.

B——, N. H. JUNE, 1835.

In passing through the “Granite State” the traveller cannot but notice in how great a degree her prosperity and advancement depend on the farmer,—for a very large proportion of her population must, from their situation and the nature of the country, depend on the culture of the soil. At first view, her interminable hills and rocks seem to offer but little encouragement for tillage, and in too many cases this view of the matter appears to have preponderated with the owner of the soil, and his large but thinly cultivated fields, the time-worn buildings and fences of many, the inferior breeds of cattle, the orchards, in many cases confined to the old and unimproved varieties of fruit, the absence of the many conveniences of the systematic farmer, offer but little inducement or temptation to embrace the life of the cultivator of the soil. But on a closer examination there may generally be found land as strong and productive as most of the New England States, and facilities which, if improved, may make the farmer’s life, what it ought to be, one of which he may be envied the enjoyment.

In riding along through the upper part of the State, one of the first things which strikes the eye of one accustomed to the comfort and neatness of most of the well cultivated farms in Massachusetts is, the great extent of land around many of the farm houses which lies uncultivated and unimproved, which now is not only unpleasant to the eye, but from the taxes which the farmer pays for all this and the expense of keeping it properly inclosed, must be a heavy drawback on the profits of the whole farm. As a general rule, the farmer, by judicious management and a proper rotation of crops, might here, as in many other states in New England, raise as much from one

half as he now does from the whole of his farm ; his profits from this half would be very much more than it is now from the whole, and the hardy sons of our farmers, born and bred among her “everlasting hills,” might still remain on their native soil, and make happier if not better men than when transplanted to the counters or workshops of the city, or compelled to seek in the far West a subsistence which they ought to draw from “their own, their native” soil.

Whence arises this want of knowledge of his best interests?—It is from a reverence for old customs and ancient usages. It is too often the case that the farmer practises on the old-fashioned modes of cultivation pursued by his ancestors,—uses the antiquated and unwieldy tools they used, neglects and despises the improvements in farming and domestic economy of a later day ; and if he is told there are better and more economical modes of culture, which will make him more independent and render his labors lighter, as well as more profitable, his usual retort is, “All this is very well to talk about,—it looks well *on paper*—but I don’t like *book farming*, nor new fangled notions—I’ve got along well enough so far, and made a living, and why should I trouble myself about *improving*?”—This “well enough” is what keeps half the world contented in their original obscurity, represses the promptings of a laudable and honest ambition to improve themselves and their posterity—were I emperor or king for a day I would condemn every person who professed himself a disciple of this “well enough” school to the tread mill for a year. I often wish, Mr Editor, when I hear such answers, that I had a moiety of your brain as manufactured into the “*Complete Farmer*,” or a volume of your weekly hebdomadal, that I might act as a missionary-at-large, and leave one at the house of every one of these farmers,—with the request that during the long winter evenings they would read and “inwardly digest” its practical results, its pithy precepts, its sage maxims, and its *black and white* demonstrations, so plain that the most obtuse could see and learn the advantages of good, scientific farming—be it *book-farming* or not, so long as it be practical. Were I to resort to farming once more, I hardly know how I could do without one or both of the above works : and I would suggest to the Officers of the various Agricultural Societies in New England the more general adoption of the plan of giving, instead of a small premium, a volume of some valuable Agricultural work—It would, beside the value of the matter of the work, keep the subject constantly in the mind of the farmer, and incite him to new exertions.—It has been very beneficial wherever adopted, and would help to sustain our now feebly supported agricultural

works. Will some of the officers of Agricultural Societies who have adopted this plan give us, the uninitiated in the plan, the results of their experience in this matter?

The fact is, the farmer and everybody else knows, that "what man has done man can do again," and when he reads of such rich and profitable results from good farming, the farmer must see where his true interest lies, and go and do likewise.

I have wandered somewhat from my "way" on this subject, which I deem of such great importance. If you think these "Notes" worth the room, you shall hear from me again in a few more remarks on this subject and on some others which I find in my note book.

Your friend,
RUSTICUS IN URBE.

FRAMINGHAM, JUNE 24, 1835.

To the Editor of the New England Farmer.

DEAR SIR—If you think the following hints seasonable you are at liberty to publish them.

TO YOUNG FARMERS.

How to kill bushes and briers by the roadside.—After weeding your corn you will often find a good supply of grass, bushes and briers full of sap growing beside your fences. To kill these let three or four furrows be ploughed near the fence—let your boy with a shovel bend down flat to the ground the bushes and the briers, while you, with one of Partridge's four-tined forks, throw on sods enough to bury them completely. This is as easy as to cut them, and is a much surer mode of curing the evil.

How to make manure.—Harrow this ridge of dirt once or twice during summer, keeping the sods and bushes down close, and in November cart and spread it on your mowing grounds, taking care to put light soil on to heavy, and heavy soil on to light lands. You may make good manure in this way for less than a shilling a load.

How to keep cattle out of the Highway.—Cattle are much inclined to run in the highway either when that affords the best feed, or when they have no other pasture. By the process above recommended you will compel these vagrants to walk in different paths, and if your fences be good the inclosures of their owners will be the more likely to afford them an asylum.

This simple process then accomplishes three objects. It kills your bushes and briers, makes you a good manure, and drives stray beasts from the road. One more advantage shall be named, besides what you gain in the addition of beauty to your highways and fields. Your rows of winter apple trees will grow and bear better by the roadside by ploughing in this manner than they will when you leave the soil and bushes undisturbed.

Young trees, particularly, cannot contend with success, against the roots of grass and bunches. Breaking

up the soil, even if a part of it be carried away, is beneficial to them.

None but winter fruit should grow by the road side, and the Baldwin is here to be preferred to the Greening, as it grows more erect and will not rudely salute the civil traveller.

By picking these winter apples in season you will save nearly the whole fruit to yourself, but suppose you lose one half, and it gets into the pocket of the traveller, you can well afford it; for only half the shade of the tree falls on *your* land. And trees growing by a wall are usually much more productive than those standing in midfield.

Apple trees are not so ornamental by the roadside as some other trees, but they are more useful, and they do less injury to the grass beneath and around them than any trees excepting the locust.

Few people are willing to devote time or land for merely ornamental trees, and we cannot expect that our roads will ever be shaded by them. I ask you therefore to consult your own interest,—set out winter fruit trees that will grow erect, *on the south side of the road* in your field, near the wall, and I promise you as much profit from these as from any of your fruit trees.

Yours,
W. B.

COCOONS INTENDED FOR SALE.

In order to prevent the cocoons from being perforated by the moths escaping from them, which greatly lessens their value, it is necessary to kill the moths. This is generally done by baking in an oven or by steam, but the best mode, is to lay the cocoons on linen or cotton sheets, but not too close, or one upon the other, and expose them thus to the heat of the sun in open air, when it is perfectly dry, during four days, from 11 A. M. to 4 P. M. taking great care in handling them not to crush or flatten them, which is of the highest importance. In that time there is no doubt that the moths will be killed.

The processes of steaming and baking are not always safe, because they may be overdone and the silk greatly injured. I have seen instances of it in this country. Yet, if the weather should prove obstinately damp or rainy, those processes must be recurred to; but not in dry sunshiny weather, when they can be avoided.

The last thing to be spoken of is the packing of the cocoons to send to market. They must be put in boxes with great care, not pressed too close lest they should be flattened, and close enough that they should not suffer in like manner by striking hard upon each other in consequence of the motion of carriages or stages. The boxes being dry and well conditioned may be transported by steamboats; if transported by sea, they should not remain longer than fifteen days on salt water,

lest they should become mouldy. On river water, and particularly by steamboats, there is not the same danger. The boxes in every case should be covered with a tarpaulin of good oil cloth, that they may in no case suffer from dampness or rain.

The price of cocoons in this country cannot yet be settled, but it will be the interest of the silk culturist to sell them in the beginning as cheap as possible, to encourage the silk manufacturers, which alone can procure them regular purchasers, and without which their produce must lie on their hands.

Perforated cocoons, from which the moth has escaped, those which are spotted, and the imperfect ones, command no price, and are generally given away by the silk culturists. There are but few of them, because, those who raise the silk worms being experienced in the business, produce hardly any but good cocoons. When these are sold, the bad ones are thrown into the bargain.

Oakland Whig.

Transactions of the Essex Agricultural Society, for 1834.

ON DOMESTIC MANUFACTURES.

This Committee, Rev. G. B. Perry, Chairman after mentioning the awards of premiums—some of which for specimens of needlework, were given to children 11, 5, and 4 years old, amounting in the whole to the sum of one hundred and eight dollars—proceed to say ;

In presenting this report they are happy to observe what indeed must be known to all who have visited the room where the articles were exhibited, that their number was unusually large, and in general of a superior quality. It will be readily perceived that this increase in number, considering the limited time allowed the committee for examination, must increase the difficulty of examining and comparing them so as to judge correctly of their relative merits. All the committee assume is an honest desire to fulfil impartially the trust committed to them, feeling no ways confident that exact justice has in all instances been done.

There were several articles for which premiums or gratuities are awarded, and others perhaps nearly or quite as meritorious, not thus distinguished, upon which the committee would have been glad to have made some remarks. Among them may be mentioned specimens of different kinds of dressed leather, a great number of very substantial hearth rugs, several pair of linen hose, a variety of beautiful articles manufactured from the milk-weed, (*asclepias syriaca*), and some interesting specimens of coloring done by Mrs Merrill of Newbury. But our time did not allow of such discriminate records as would now make our remarks of the best service to the Society.

An unusual number of the specimens exhibit-

ed were the work of children from 4 to 12 years of age, many of them executed at leisure hours or between schools, and afford a happy and encouraging evidence of the industry of that interesting portion of our population. Your committee were at some difficulty to determine what should be done in relation to them, but concluded finally, as it was the great object of this Society to encourage industry and the development of the mechanical powers, they would recommend a gratuity of a dollar to each one whose work gave creditable evidence of a desire and ability to do well. Your committee think, however, that should the Society comply with this recommendation, it ought not to be construed into an intimation that the like course would be pursued at subsequent exhibitions.

Perhaps it may be observed with justice, that a large proportion of the articles were rather of ornamental than in the strictest sense of the word, of the useful—such as are more calculated to please than to profit. Your committee are not enemies to taste and ornament ; nor do they suppose that because a thing is good for nothing but just to look at, that it is therefore worthless. Our benevolent and wise Creator has made, and does from year to year continue to make, many things of which we know no use except that they are pleasant to the sight ; and we feel willing—more than this, desirous,—that the noblest portion of his creatures should in their appropriate sphere attempt to imitate him. But with the beautiful he has given a still larger portion of what in civil economy is called the useful, or perhaps it may be more accurately expressed, he has rendered the useful attractive by finishing it in a tasteful and ornamental manner. We do not wish any of the specimens had been withheld, nor the attention to things of taste diminished, but we wish with these an increase of those of a more substantial character, and particularly those where the useful are rendered interesting and attracting by an ornamental and, tasteful finish. We are persuaded we express the feelings of the Society, and of the community generally, when we observe that the great and good design of this annual exhibition will be more fully answered, if in subsequent years our young female friends, and indeed those of greater age, together with their highly finished specimens of bead and lace and various fancy work, will also bring well wrought specimens of plain sewing and knitting, garments of common wear, and other necessary and substantial articles of domestic life ; things which meet the wants and subserve the interest of every day, and by which, even in the busy forenoon, a family would appear attracting, as well when at evening they are ready to see friends and enjoy the sweets of social life.

BONE MANURE.

Mr John R. Watson, of Perth Amboy, New Jersey, has communicated to the N. Y. Farmer, a series of experiments which he has made with bone dust as a manure, and which gave the following results: 1st. That its good effects are equally perceptible on a light, and on a heavy loam: 2d. That two rows of corn, planted in drills manured with it, proved better than 2 other rows manured highly with hog-pen and yard manure, and two others with fish: 3d. That an acre of grass with 25 bushels of it spread broad-cast, proved superior to any other manured with any other substance he had ever used, and was matured three weeks earlier than any other around it: 4th. 25 bushels of it sowed broad-cast on an acre of oats, proved greatly superior to farm yard manure: and 5thly, he has found it an excellent manure for trees.

In England, bone dust has been long and freely used among agriculturists, and is highly approved as a manure: but we doubt whether in this country, where land is so plenty and cheap, it can ever be found an object of general use. The difficulty of procuring it here, in sufficient quantities, except in the immediate neighborhood of large cities, must always operate to prevent its introduction into general use, to any considerable extent. In situations, however, favorable to full supplies, we apprehend, establishments for the collection of bones, reduction into, and sale of the dust, would prove highly beneficial and profitable. Of the eminently invigorating quality of the powder, there can be no doubt in the minds of those who are aware of the elements of which bones are composed.—*Baltimore Farmer.*

ROSE LEAF SPICE.—The following method of preserving rose leaves for use as a spice, was told us the other day by a friend who is a good housewife, and withal a very intelligent and worthy woman. She gathers the leaves when they are fresh and in their prime, and presses them into a jar—first a layer of leaves and then a layer of sugar, thus alternating the leaves and sugar until the jar is full, when a leather is tied over it tightly. They will keep thus for a long time. But the cheapest and best way is the following—Press your leaves snugly in a decanter or bottle, and when very nearly full, pour in a little spirit, sufficient to use up and keep the air from the leaves; then stop the bottle tight. In this state, the leaves may be kept good for any length of time, and when wanted some of them may be taken out for giving a flavor and perfume to sauces, puddings, or anything else. Here now, good farmer's wives, is an inducement for you to cultivate the rose, even if you have no particular desire to cultivate flowers, for there is a simple and practical use to be made of them in a domestic line. It will no

doubt make yourself and family more independent, to raise your own spice on your own land and at your own doors, than be trotting off every month or two to the *merchant's* to swap away your butter and eggs, for alspice and nutmegs. And besides, the ornament of the *bush*, will raise the value of your premises some few per cent in the eyes of every person of taste.—*Me. Farmer.*

In addition to the above preparation as a spice, we have often found it a grateful preserve as a medicine in diseases of the lungs. We cheerfully join with our old friend of the *Maine Farmer*, in recommendation of the rose—economy and benevolence both demand it.—*Ed. Mec. & Far.*

A company has been formed in this town for the purpose of manufacturing silk; a farm has been purchased, and a considerable number of mulberry trees have been already planted. It has been proved that the soil of this State is well adapted to the cultivation of the mulberry, and we have no doubt that our farmers would very much enhance the value of their farms by planting the trees. Silk may be manufactured from the trees when they are four years old, and there is scarcely any farm that would not admit of planting a great number of them without injury to other crops.—*Concord, N. H. Patriot.*

SELF CONTROL.

WASHINGTON seldom showed that he was much elated or excited. He had very strong feelings but generally suppressed them. When on his way to take command of the American army at Cambridge, the last of June, 1775, he met the news of Bunker Hill battle; and he was so rejoiced to learn, that the Militia would fight bravely for the country, he took off his hat and gave three cheers; and said, "there is hope,—my countrymen are brave."

In 1777, the third year of the war, he was very anxious to have the States raise troops for during the war, or at least for three years, rather than for one. A Committee of the General Court of Massachusetts waited on him to inform him, that they had voted to raise the men he wanted, but only for one year. He jumped from his chair, and said "good God, gentlemen, the country will be ruined by such measures!" He then took his seat, and was perfectly calm. But the men were raised for during the war, or for three years.

DRY ROT.—An effectual preventive is said to have been lately discovered in England, of the dry rot. Experiments have been made, and in the opinion of both scientific and practical men of those concerned in ship-building and navigation, the proposed preventive is effectual and complete.

BRIGHTON MARKET,—MONDAY, JULY 6, 1835.

Reported for the Daily Advertiser & Patriot.

At Market, 660 Beef Cattle, 14 pairs Working Oxen, 74 Cows and Calves, 2760 Sheep and Lambs, and 450 Swine. About 40 Beef Cattle and 200 Sheep have been before reported. 225 Beef Cattle, several hundred Sheep and about 30 Cows and Calves remain unsold.

PRICES.—*Beef Cattle*—The quality of the Cattle at market generally, was quite inferior; we scarce ever observed them more so. Sales were very unequal for a like quality. We noticed a few taken at about 39s. We quote prime at 34 6 a 37 6; good at 30 a 33; thin and ordinary at 24s a 23s 6d

Working Oxen—A few buyers only. Sales dull.

Cows and Calves—dull, and prices considerably reduced. We noticed a large number of sales at from 16 to \$22, and none higher than \$33.

Sheep and Lambs—Former prices were not supported. Lots including 1-5th old, some of which were very small and ordinary, were taken at 8s, 9s, and 9s 9d; middling quality 10s, 11s, 12s 6d, and 13s 6d; better qualities, some of which were 1-3d Wethers, 14s, 15s, and 16s 6d.

Swine—One lot of about 100, nearly all pigs, were taken at about 6½c; one lot old barrows at 6¼ at retail. Small pigs are not weighed. Old pigs, 6 for sows and 7 for barrows.

We have been requested to state that there will be at the Brighton Market, from New York, 100 first rate Beef Cattle, on each of the two successive weeks.

FANEUIL HALL VEGETABLE MARKET,

WEDNESDAY, JULY 8, 1835.

Early Peas \$1.25 per bu., Marrowfats or Sugar Peas 1.50 a bu., Early Potatoes 50 cts. a peck, Carrots 6 cts. a bunch, Beets 12½ cts a bunch, Early string Beans 75 cts. a peck, Early Scollop Squashes, the first in the Market and are for sale at S. Rand's, Stall, No. 84, 75 cts. a dozen, Cucumbers 6 to 8 cts. apiece, Cabbages 50 to 75 cts. a dozen, Turnips 8 cts a bunch, Onions 6 cts. a bunch, Lettuce 3 cts. a bunch, Radishes 3 cts. a bunch, Rhubarb 6 cts. a pound.

Fruit.—Strawberries 25 cts. a box, Currants 8 cts. a quart, Cherries 10 to 12½ cts. a quart, Blueberries 25 cts. a quart, Gooseberries 12½ cts. a quart.

HORSE RAKE.

Just received at the Agricultural Warehouse, a few first rate Revolving Horse Rakes.
July 8.

FARMER WANTED.

A smart, capable man to take charge of a small farm in the vicinity of Boston, is wanted immediately. Apply to
July 8. 21 GEO. C. BARRETT.

WANTED

A man and wife (Americans) to take the charge of a Farm of about 500 acres in the State of New York, Near Green Bush. The man must be thoroughly acquainted with the various branches of business incident to such an establishment, and among other qualifications, that of the rearing and management of Stock is requisite. The wife will be required to manage an extensive dairy. To such a family, that can produce the needful recommendations for capacity, industry, neatness and sobriety, liberal encouragement will be given. None others need apply.
ZEBEDEE COOK, Jr.
June 25, 1835. 6t 4 Court Street.

FLOWER POTS.

The subscriber has for sale at his pottery in Danvers, a new style of Flower Pots. Samples of the Pots may be seen at the Agricultural Warehouse, No. 51, North Market street.
June 10. 3t. MILES OSBORN.

GARDENER WANTED.

Wanted an experienced capable Gardener. He must produce written testimonials from former employers of his capacity to manage a Hot and Green House establishment, and every other branch of Gardening, and also of his sobriety and industry. Liberal wages will be paid. Horticulturists in N. York and Philadelphia, are respectfully requested to recommend any such Gardener, who may be seeking employment, to the subscriber.
JOHN LOWELL.

Broomley Vale, Roxbury, near Boston, June 23, 1835.

VALUABLE WORK ON AGRICULTURE.

This Day published by GEO. C. BARRETT, THE COMPLETE FARMER AND RURAL ECONOMIST. By T. G. FESSENDEN. Second edition, revised and improved by the Author, with considerable additions.

The first edition was published last season, and the sale was rapid beyond precedent for a work of this kind. The present improved and stereotyped impression has still higher recommendations to public patronage, and cannot fail to prove still more useful to the community of cultivators.

This work has met with decided and universal approbation from the most competent judges. Among the written and printed recommendatory notices are those of the Hon. JOHN LOWELL and Rev. HENRY COLMAN. The Editors of the New York Farmer, the New England Magazine, the Maine Farmer, Loudon's Gardener's Magazine, &c. have given favorable critiques of the Complete Farmer. We shall subjoin Mr Lowell's notice, and propose in some future number to publish those of the other gentlemen who have honored the work with their approbation.

"Roxbury, April 6, 1835.

"Having perused with attention the Complete Farmer and Rural Economist, by Thomas G. Fessenden, Esq. in its first edition, and having recently revised it at his request, preparatory to a second edition, I am of opinion that it is a valuable compendium and useful work. Those who know that the science of Agriculture is so extensive as to fill twelve quarto volumes in the celebrated French work of the Abbe Rozier, and a space not less in English works, will not expect in such an abridgement full details in any one branch of that extensive and varied art. But I know of no abridged work in the French or English languages which conveys more instruction in so small a compass than this work of Mr Fessenden.

m6

JOHN LOWELL."

HEIFERS FOR SALE.

For sale in Roxbury, a pair of Twin Heifers, 3 years old next August. They look precisely alike, and are of a fine size. Inquire of Col. Wyman, or Mr Fisher, at his Hotel in Roxbury.

The mother of the above mentioned Heifers was a twin, and during twelve years from May 15, 1822, to May, 1833, had and raised seventeen calves.

June 10.

CATHARINE BLANEY, Roxbury.

PLEASANT AND VALUABLE RESIDENCE FOR SALE.

SITUATED in Dorchester on the Brushhill turnpike, two miles from Roxbury street, containing 16 acres of excellent land with a mansion house, farm house, two barns and outhouses thereon, having a garden of one acre containing valuable fruits &c. The situation is unrivalled, commanding a most extensive prospect of the harbor and of the country back.

The houses are in complete repair and the whole farm under a good state of cultivation, with a good orchard of excellent fruit. For terms and particulars inquire of Messrs LOT WHEELRIGHT & SON, 46 Central Wharf, GEORGE C. BARRETT at this office, or JOSIAH WILSON on the premises.

FARM FOR SALE OR EXCHANGE.

An excellent Farm containing 70 acres, situated in Marlborough, Mass., with a house and barn thereon, for sale, or would be exchanged for property in the city of Boston. For terms and particulars inquire of G. C. BARRETT at this office, or N. B. PROCTOR, Esq. of said Marlborough. 6m.

THRESHING MACHINE.

The subscriber respectfully offers to the public a new THRESHING MACHINE which he has recently invented, and which for utility, cheapness and simplicity he can recommend to their use.

The machine, put in operation by a horse and tended by two men, is capable of threshing grain of all kinds, whether reaped or mowed, and at the same time separates it from the straw, doing the work of twelve men by the ordinary process per day, without any waste of the grain.

The apparatus by which the machine is put in motion is connected with it, and it is altogether as portable as a horse wagon.

Its simplicity is such that it can be built or repaired by most farmers at a small expense.

The superiority of the machine over any other of the kind now in use, consists mainly in the perfect manner in which it separates the grain from the head of the sheaf—every grain being effectually separated—which in itself is equal to 5 per cent of the whole quantity threshed. The head passes through unbroken, but the grain is effectually cleared. As to its capability of execution, it will thresh out as much grain as the most active man can handle, and then the cradle into which it passes is frequently not more than half filled.

The subscriber has secured Letters Patent for the above invention. The machine will soon be ready for exhibition in this city, due notice of which will be given, and rights for States, counties and towns then be disposed of.

June 24.

WILLIAM LAIGHTON.

MORUS MULTICAULIS.

Trees of the above new variety of the Mulberry for sale by the subscriber at \$40 per hundred, \$5 per dozen, and 50 cts each, being about six feet high. Orders solicited.

Feb. 18.

GEO. C. BARRETT.

HOLLIS' CELEBRATED HORSE LINIMENT,

For Sprains, Bruises, Wind-Galls, Old Strains, Stiff joints, Swelled or Cracked Heels, and for Horses that are strained in the back sinews, wrung in the withers, &c.; also for Glandular swellings of the throat.

The ingredients which compose this preparation have been carefully selected after many years' experience, and are some of the most successful remedies united, correctly proportioned and happily adapted to afford relief in all the above mentioned complaints; the proprietor feels assured that when once this article is used, it will be preferred to any other, as it is decidedly the best and certainly the most convenient article in use.

N. B. Persons afflicted with Rheumatism, Sprains, Cramp, Numbness, Stiffness, or Weakness in the Joints, will find this Liniment a valuable and efficacious remedy.

Prepared and sold by THOMAS HOLLIS, Druggist and Chemist, No. 30, Union Street, Boston, Mass.

☐ The Public are requested to observe that each label is signed.

Price for large Bottles one dollar, small do. 75 cents. o29

WANTS A SITUATION AS GARDENER,

A single man, who is well acquainted with his business in all its branches, and who can procure good recommendations from his last employers. Enquire at G. C. Barrett's Agricultural Warehouse, Boston. m6.

SILK COCOONS WANTED.

The subscriber, encouraged by the late act of the Legislature to reel and throw American Silk, wishes to purchase at the Agricultural Warehouse in Boston, Silk Cocoons, and will pay \$3 per bushel for the best, and in proportion for poorer ones. [m6] G. C. BARRETT.

SILVER FIRS, &c.

WILLIAM MANN of Bangor, Me. will execute at short notice orders for Silver Firs, Evergreens, &c. well packed and in good order. april 8.

COMPLETE SET OF THE FARMER.

For sale at this office, one complete set of the New England Farmer, comprising twelve volumes, neatly and well bound, and perfect. Price \$3 25 per volume, cash. Feb. 18.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES,	barrel	3 50	5 00
BEANS, white,	bushel	1 62	2 00
BEEF, mess, (new)	barrel	13 00	13 50
Cargo, No. 1.	"	11 50	12 00
prime,	"	9 00	9 50
BEEFWAX, (American)	pound	20	24
BUTTER inspected, No. 1,	"	16	20
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	40	45
southern, geese,	"	35	39
FLAX, American,	"	9	10
FLAXSEED,	bushel	1 33	1 37
FLOUR, Genesee, cash	barrel	7 00	7 12
Baltimore, Howard street,	"	7 00	7 12
Baltimore, wharf,	"	6 87	7 00
Alexandria,	"	6 75	6 87
GRAIN, Corn, northern yellow	bushel	1 04	1 06
southern yellow	"	1 00	
white,	"	98	1 00
Rye, northern, none.	"		
Barley,	"		
Oats, northern, (prime)	"	68	70
HAY, best English,	ton	19 50	21 00
eastern screwed,	"	15 00	16 00
hard pressed,	"	16 00	18 00
HONEY,	gallon	37	42
HOPS, 1st quality	pound	13	14
2d quality	"		
LARD, Boston, 1st sort,	"	11	12
southern, 1st sort,	"	9	10
LEATHER, slaughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	19	21
do. upper,	"	18	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	95	1 00
PORK, Mass. inspect. extra clear,	barrel	20 50	21 00
Navy, mess,	"	16 00	16 50
bone, middlings,	"		
SEEDS, Herd's Grass,	bushel	2 25	2 37
Red Top,	"	75	87
Red Clover, northern,	pound	8	9
White Dutch Honeysuckle,	"	25	03
SILK COCOONS, (American)	bushel	2 00	3 00
TALLOW, tried,	cwt.	7 50	8 00
WOOL, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	65
do. 2-4ths do.	"	50	55
do. 1-2 do.	"	37	42
do. 1-4 and common	"	40	45
Native washed,	"	38	60
Northern pulled, { Pulled superfine,	"	60	65
{ 1st Lambs,	"	45	50
{ 2d do.	"	33	38
{ 3d do.	"	25	30
{ 1st Spinning,	"	35	40
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	12	13
southern, none.	"		
PORK, whole hogs,	"	6	5
POULTRY,	"	10	17
BUTTER, (tub)	"	14	14
lump	"	16	16
EGGS,	dozen	15	18
POTATOES,	bushel	50	56
CIDER,	barrel	3 50	4 00

ORDERS FOR PRINTING RECEIVED BY THE PUBLISHER.

FESSENDEN'S SILK MANUAL,

AND PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I.

BOSTON, AUGUST, 1835.

NO. 4.

PUBLISHED MONTHLY BY

GEORGE C. BARRETT,

51 & 52 North Market St., at the N. E. Farmer Office.

T. G. FESSENDEN—EDITOR.

Fifty cents per year—twelve copies for five dollars—always in advance.

Postmasters and Agents allowed 10 per cent on all subscribers.

BOSTON, AUGUST, 1835.

FACTS AND OBSERVATIONS RELATIVE TO THE CULTURE OF SILK.

SILK MANUFACTURERS.

The first steps in the manufacture of silk are within the farmer's immediate department, viz. to sow the mulberry seed, and rear the young trees; and after two years of attendance, the raising of silk may commence in good earnest, and will become a pleasant and healthy business for children and young women. This rich crop will require but two months' care to secure it, and when the business shall flourish on a large scale, which we hope will ere long take place, the raising of the mulberry trees, feeding the silk worms, and the manufacturing of the cocoons will be considered as much a part of good husbandry, as the rearing of neat cattle, sheep, &c. Silk worms will become a part of a farmer's stock, and cocoons his produce as commonly sent to market as butter, cheese, &c. The winding and reeling of cocoons may or may not be performed in the family and by the fireside, as the cultivator's *help* or circumstances may admit; but the cocoons will be as much cash articles as beef, corn or cotton.

Great advantages will accrue to the younger members of farmer's families from silk culture. Farmers' daughters in limited circumstances, but

of respectable standing and connexions may find a profitable and pleasant employment at home, instead of being compelled by penury to seek an asylum from want in cotton factories, or the kitchens of their more wealthy neighbors. Poor people may find profitable employment, rich people innocent and pleasant amusement in the different branches of the same occupation. Some of the processes necessary for converting mulberry leaves into the multifarious manufactures in which silk forms the whole or an important part, may be performed by a child or an idiot. Other manipulations connected with the same business require consummate skill, and long practice to insure their proper performance. Ignorance of an art can be no apology for idleness when knowledge is not necessary for its prosecution; and every human being of every grade of intellect, or strength, mental or corporeal power, if not an infant, insane or bed ridden, may find something connected with silk culture adapted to his or her faculties, and calculated to furnish useful employment.

The mechanical part of reeling silk in France and Italy is performed entirely by women. There are in those countries what are called great and small filatures. The former are large establishments, in which from 50 to 500 reels are at work; the women employed there are under the superintendence of a director, who is thoroughly acquainted with the mechanical as well as the mercantile part of the business. These directors are brought up to the profession. The women employed in these large filatures are well paid, and generally remain there till the end of their days. The small, or as we should call them *domestic* filatures, are carried on in families by the farmers' wives and daughters, who work from one to five reels, with cocoons of their own rais-

ing, or those they purchase of their neighbors, by which they make a handsome income at the end of the year. Those women in general have preserved the art in the families from generation to generation. The silk from *domestic* reels is not as perfect as that which comes from the large filatures. It sells, however, and the manufacturers know how to employ it.—It must be added, that the French and Italian female reelers perform their work mechanically, and are, in other respects grossly ignorant: few of them, if any, knowing even how to read and write. Our American women will prove themselves far superior in every respect, and their domestic filatures will produce perfect silk, because they will not have received instruction through their great-grandmothers, before the art was improved as it is now.

In this country there should be both great and small or domestic filatures; the former will be the depositories of all the improvements in the art; the latter will contribute to the use of families, and there is no danger of their being an excess of the article in the market. There must be filatures of all sizes and dimensions, according to the means of those who undertake them. Full and free competition can alone ensure success.

SUPERIORITY OF AMERICAN SILK.

M. D'Homergue has been the first to discover the great superiority of American silk over that of any other country, and ascertained the fact, that, while in France it requires twelve pounds of cocoons to produce one pound of raw silk, eight pounds will in this country, be amply sufficient to produce the same quantity. Experiments made long since in Georgia, it is true had given the same result, but they were insulated and had excited no particular attention. In the Manual, published in 1828, under the authority of the House of Representatives of the United States, the author (pages 105, 106) has inserted those experiments in detail, as extracted from the manuscript of the late Col. Habersham, and has subjoined similar ones made in France and Italy, with their results, extracted from various foreign writers, and those results, in general correspond with the statement of M. D'Homergue; but neither the author nor any body else, appears to have perceived the

great advantages of American silk over all others although the facts were before their eyes. The reason is, that it required a practical man to make the important discovery; one well acquainted with the properties of foreign silks, and enabled by his own experience, to take a clear comparative view of them with our own, and decide on both. *

The following "General Directions to American Planters and Farmers for the Raising of silk worms by J. D'Homergue" are copied from the work above quoted.

I. OF THE EGGS OF SILK WORMS.

The eggs of silk worms exactly resemble in their appearance and color the seeds of the poppy. Hence those seeds are sometimes sold in Europe by dishonest men as silk worm's eggs, or mixed with them. But it is easy to detect the fraud, and at the same time to separate the good or live eggs from the bad ones. The eggs must be washed in pure water; all that are good will go to the bottom, and the bad ones will swim. This separation ought to be made by any one who purchases worms' eggs. It is also necessary to keep them clean, and free them by washing from a kind of gum which adheres to them. Those who purchase or receive from others the eggs of silk worms will do well to observe this direction, although the eggs may have been washed by those who raised them, as many of them may have perished by dampness, excessive heat or want of care.

After the eggs have been washed, they must be dried by exposure to cool and dry air. As the eggs are produced in the month of July, which is a hot month, they must be kept in some cool place until the proper season for hatching them, which is in May. No degree of cold can hurt them, provided they do not freeze. If they are purchased and received in the hot season, they must be dried in the sun after being washed, but in the cool of the morning or evening, when the air is perfectly dry, and the dew is not falling. The manner of preserving them will be mentioned hereafter.

II. OF HATCHING THE EGGS.

The general rule in Europe is to put the worms'

* Report of the Committee on Agriculture to the House of Representatives in Congress.

eggs to hatch as soon as the mulberry trees begin to bud. The tree here spoken of is the *Italian white mulberry*,* (the proper food of silk worms) which should be every where extensively planted. It buds generally about the 11th of May. Ten days afterwards, say about the 20th, they put forth their leaves. These ten days in France are employed in hatching the eggs, by exposing them to a heat which is graduated by means of stoves and thermometers. But in this country nature has done everything, and I can see as yet no need of recurring to art. The worms' eggs may then here be put to hatch when the leaves begin, or are ready to appear. I think in this country this happens about the 21st of May, when the sun passes from Taurus to Gemini. If, however, by some change in the temperature, the mulberry trees should put forth their leaves later than usual, the time of hatching should be delayed proportionally. But I am inclined to think that that but seldom happens in this country.

The manner of putting the eggs to hatch is as follows. They should be put in a pasteboard or wooden box, not covered at the top, and the sides not more than half an inch high, so that the worms, when hatched, may easily crawl out as will be presently mentioned. The size of the box should be suited to the quantity of eggs to be hatched, so that they be not on the top of one another. The box should then be covered with paper, perforated with holes of the size of a large pin's head, so that the worms when hatched may easily pass through them. I have found that the worms in this country, as far as my experience goes, are generally hatched in three days after being put into the box. When they are near coming out, young mulberry leaves should be put on the top of the box, leaving spaces. The worms, as soon as hatched will smell these leaves, crawl up to them through the holes in the paper cover, and begin feeding. Then the leaves covered with worms, are gently taken up, and laid on a table or hurdle that has been prepared to receive them.

The eggs should be put to hatch in a warm

* At the time when this was published the Chinese Mulberry had not been introduced into this country.—*Editor.*

place. The heat should be at least 80 degrees Fahrenheit. When I arrived in this city [Washington] on the 18th of May the thermometer was 82½ degrees within doors. It, is therefore, probable that about the same period it does not often fall below 80 degrees, particularly in the south. The European writers have taken great pains to graduate the heat during the ten days which are employed in those countries for hatching worms' eggs. All these precautions do not appear necessary in this country.

[To be concluded in our next.]

MANAGEMENT OF PIGS.—The following experiment was made by a gentleman of Norfolk. Six pigs of the Norfolk breed, and of nearly equal weight were put to keeping at the same time, and treated the same as to food and litter for about seven weeks. Three of them were left to shift for themselves as to cleanliness; the other three were kept as clean as possible by a man employed for the purpose with a currycomb and brush. The last consumed in seven weeks fewer peas by *five bushels*, than the other three: yet they weighed more when killed by two stone and four pounds (thirtysix pounds) upon an average, or six stone twelve pounds upon the whole.—*The Bee, Pitou, N. Scotia.*

DESTRUCTION OF INSECTS.

MR FESSENDEN—Some three or four years since, I was induced to make an experiment on the effect of animal oil applied to the destruction of worms on trees, knowing the fact that oils are fatal to those insects, when applied directly, but the difficulty of giving to each a portion in due season was to be surmounted. I accordingly tried the vapor by heating about a quart in an iron vessel, holding the vessel under the tree that the fumes might arise into every part. This had the effect, but the oil soon ceased to evaporate in consequence of the loss of heat, I then heated it again and in this state inflamed it. While it was still burning, by moving round under each tree, staying five or six minutes at each, every worm was destroyed. I communicated this to several gentlemen, who were induced to try it, and they were much gratified with the result. Since my first, or rather second attempt it has been tried in the same way in Salem, New Bedford, and other places with perfect success. If you think it worth a place in your paper you are at liberty to place it there.

JOSEPH DIXON.

Taunton, August 3, 1835.

WHITE MULBERRIES of a large size set out in the fall are more likely to take well and thrive the ensuing summer than if set out in the spring, but on no account should the *Morus Multicaulis* be set out in the fall.

The Silk Cocoonery of Mr Samuel Whitmarsh of this town is now in full operation. It is two hundred feet in length and two stories in height. It is filled with ranges of sliding draws of twine lattice work, upon which the worms feed, and these are intersected by alleys, so that the building has fresh air and light. It is capable of feeding four or five millions of worms. At the present time he has but about eight hundred thousand. He has them in all the various stages, from just out of the egg, to the winding the cocoons.

It is curious enough to see the almost invisible little worms just from an egg, less than half the size of a pin head. To notice their expansion each successive day, more than doubling themselves in size and increasing in a few weeks from the mere mite to the dimensions of a three inch corpulent caterpillar. Then to notice their habits and instinct and way of taking their food, eating in a continued half circle upon the leaf until it is all devoured. Again the preparation of winding itself up in the cocoon, attaching its two extremities to some object and then throwing out its threads in every direction until it secludes itself within its bosom.

Mr Whitmarsh does not feed his worms at present upon the Chinese mulberry. The plant is yet rare and the growers are anxious to multiply them by laying down all the shoots. From the great number under cultivation by various gentlemen in this town and the care taken to increase them, there is reason to believe the supply will be adequate to all demands next spring. Mr Whitmarsh has some trees three or four feet in height, which withstood the severity of last winter unharmed. On some of these trees, the berry is now found and great care will be taken to preserve the seed, so that the precise character of the plant propagated from them may be accurately known.—*Lancaster Journal*.

[From the Essex Register.]

CULTURE OF SILK.

MESSRS EDITORS—I rejoice to observe that the interest taken in the growth and manufacture of Silk, continues to increase with unabated ardor. The recent improvements our countrymen have introduced in the machinery for its manufacture, promise to produce almost as much of a revolution in the art, as did the noble invention of the Cotton Gin in the production of the great staple of the South. It appears to be admitted now, by every one who has paid any attention to the subject, that the soil and climate of the United States are as genial to the growth and culture of the Silk Worm, as any county in England. I might here introduce the fact, that a gentleman from England, formerly engaged in the cultivation

of Hops in that country, recently declared, that from his own experience he had found the soil and climate of Massachusetts better calculated for the production of that important article than his native country. Thus we see, Messrs Editors, that the natural resources of our own New England are every day being fully developed, and under such circumstances too, as leave a conviction that the knowledge of her capabilities is yet but in embryo.

Many of our citizens, who have given but little attention to the subject of the culture of silk are not aware of the fact, that more attention was paid to this subject before the Revolutionary war, in this quarter, than has been since. In this town in 1764, more than 60 years ago, silk was grown and reeled for a profit; and the foundation of the trees which afforded the leaves that nourished the "insect artizan"—the white mulberry—are now standing and this very year yielded healthy scions. I cannot be mistaken about this, as I have it from an aged lady now living who gathered the leaves with her own hands. Since that period the silk worm has been now and then raised among us for mere novelty, in private families; and within the last few years several small quantities have been thrown.

In looking around for a favorable place for locating an establishment for the growth and manufacture of Silk, I was recently struck with the beauty of a small farm of 80 acres near the College Plain, at the junction of the bounds of Marblehead, Salem and Lynn, and commonly known by the Leggs Hill Farm. It has a good soil, on every variety of hill and dale; an abundant supply of fresh water, a beautiful fish pond; and is even reached by the tide-water of Forest River. I understand this whole establishment including a good dwelling-house, barn and orchard, with all the improvements can be bought for about \$50 an acre. I have no other interest in this concern than that which is common to the public; and although there are many places in our vicinity of great attraction for the prosecution of this business, I will venture to assert that, taken together, this has no superior. And then too there is something pleasing its location, standing as it does on the soil of what may be called three of the shire towns of old Essex, and so well calculated, as such an establishment would be, to continue and strengthen the already strong bonds which bind these towns in mutual friendship and fraternal regard.

Upon the whole, Messrs Editors, as there have been strong suggestions of getting up a Mulberry Plantation and Silk establishment, I shall be heartily glad to see the example of some of our sister counties followed, and a good and efficient company established—and that, too, whether it's

works should be located on this charming spot, or any other which their wisdom might select.

MARBLEHEAD.

CULTIVATION OF SILK.

It is little more than fifty years ago, that an American vessel was seized at Liverpool for having on board eight bales of cotton, it not being believed that the article could be produced in this country. At present about 600,000 bales are carried to the same port. To the culture of this article the country owes a great part of its wealth and prosperity. Where fifty years ago eight bales of cotton were produced, one million two hundred thousand are now produced. If fifty years ago a man had ventured to predict that the article of cotton would become the grand staple of the country and add millions upon millions to its wealth, he would have been laughed at as a madman. It has lately been predicted that before many years are passed, the production of silk in this country will equal the production of cotton, and we see no reason to question the justice of the calculation.

The cultivation of this article has been commenced by the enterprising men of the east. The soil and climate of New England are admirably adapted to its cultivation. Those who have thus far engaged in it, have reaped good profits, and have every reason to persevere. It has been commenced in a part of the country where thrift and industry have never failed to succeed. It has been commenced under far more favorable circumstances than those which attended the first cultivation of cotton. It requires but little labor and the principal part of the labor required may be performed by females and children. The experiment has thus far proved successful and it has been attended with a trifling degree of expense.

Would it not be worth the attention of our Long Island farmers? From all that we have been enabled to learn, the soil of the island is admirably adapted for the cultivation of the mulberry. There are certain parts of the island where mulberry trees have existed for a long number of years, and the luxuriance of their growth has been surpassed by that of any other tree. The subject is one worthy of their attention. We know that in certain parts of the island, silk has been cultivated—more indeed for the sake of amusement and curiosity than of profit, but with complete success.—*New York Times*.

LOOK TO THE SOURCES OF INFORMATION.—The success of the silk enterprise in this country depends mainly upon correct information in the outset. A wrong start is almost sure to be fol-

lowed with discouragement and loss, if not total abandonment of the object. Hence it is advisable to be cautious about following the directions given in loose newspaper paragraphs some of which are hastily written by editors unacquainted with the business, and others copied or rather garbled from the writings of practical culturists. An instance of this kind will be sufficient to illustrate the uncertainty of this kind of information. Some time since Judge Spencer of Albany, published a valuable letter on the subject of the culture of silk, in which he stated that an ounce of seed produces about 5000 plants. The editor of a New Bedford paper in remarking upon it, has made the judge to say 50,000, which is probably multiplying in a ratio which the judge would be unwilling to adopt. Should the next copyist add another cypher, the product would be truly astonishing.

While on this subject we will say that from actual computation we have found an ounce of mulberry seed to contain 18000 kernels—what part will vegetate depends upon the quality of the seed and the manner of sowing it.—*Silk Culturist*.

SOAK YOUR SEED.—The suggestion of a practical gentleman in corroboration of our own experience on the subject, has satisfied us that mulberry seed ought never to be sown until it has been soaked in water blood warm for at least thirtysix hours. It will vegetate quicker, grow more vigorously and ensure a much greater number of plants.—*Id.*

[From the New England Farmer.]

FALL PLOUGHING.

Last Autumn I had three lots of banked meadow land, about five acres in each, lying side by side, separated only by a six feet ditch, and to all appearance no difference in any respect, that I intended to have ploughed in the fall and planted with Indian corn in the spring. It so happened that only one of the lots was ploughed last fall, the remaining two lots this spring. Where the ground was ploughed last fall there is now growing a very vigorous and healthy crop of corn. The other two lots have been twice planted, and here and there are growing a hill of corn, yellow and sickly in its appearance, but almost destroyed by the cut worm. A. D.

During the late hurricane in Canton, Ill. the wrecks of houses, furniture, fences, &c. were hurled about in the air. In one instance, a fence rail was driven through an ox! Torrents of rain fell, which soon turned to hail. Some of the hail stones are said to have been as large as a goose egg!!! The Sangamon river overflowed in some places, to a width of four miles.—*St. Louis Herald*.

NOTES BY THE WAY.—NO. 2.

G——, N. H. JUNE 17, 1835.

In my ride today, I have met with many illustrations of the remarks in my last.—But there are many good and honorable exceptions, and I have seen in my way here many fine farms, and where they are well cultivated, they seem to yield to their owners rich and profitable harvests.

To the lover of nature's beauties, this region affords a rich and beautiful field. I am now among the hills around Lake Wimpiseogee.—To the north lies the Lake, thickly studded with islands, which, I am told, are as many as the days of the year.—The little Belknap laden with passengers on their way to the White Hills, and the sturdy farmer, who wonders why people come so far to see what to him, from long familiarity, is so uninteresting, that he scarce ever looks at them except when the storm-cloud rolls lazily over its giant head, or the deep toned thunder warns him of the coming storm. To the east, west and south, as far as the eye can reach, "hills peep o'er hills," till you half wonder where the husbandman finds a place for his crop, or his cattle a foothold on their sloping sides. To me this opens a wide field for thought and new scenes and ever-changing objects force themselves so constantly on the mind, that I can scarce find time for sleep.—The people stare when I tell them I rose at midnight to see the cold moonbeams sleeping on the mountains, and perhaps think I have been reading Scott or Cooper, or some of our moon-loving novelists. Having never been so far into the interior of my native state, to me all these scenes have the charm of novelty. In addition to the splendor of mountain scenery and the beautiful lake, every one seems desirous of pleasing. I am struck with the general knowledge, evinced by the children even, when we might imagine from the distance of their school-houses, they had scarce ever seen the inside of one. We often come to a school-house which looks, as one may say, as if it "happened" there—dropped into the midst of a wood, with the trees growing up to the very door, and no house nearer than half a mile or more. Out of it, if it be "intermission," will rush a score of flax headed boys and girls, the hat flies off as if by steam, the knees bend as if by wire work, and then ensues the scramble for the handful of coppers the liberal traveller throws among them. And if we call at the door we may see the "school-ma'am," as the children call her, whose bright eye, round, healthy cheek, and cheerful look may well put to blush the pale, faded cheek of our city belles. I wish I could dwell on this subject—but I must stop. It is one of deep and proud interest to a New Englander—they are the castles, the safeguards of our land,—the watch towers of our religion—the never

slumbering promoters of the virtues which give us the name we so cheerfully acknowledge, we so justly claim—"the land of *steady habits*;" long may it be the worst sneer our enemies can cast upon us. But to return to our subject.

I stopped today at a handsome, neat farmhouse to rest my horse. On entering the "best room," I saw on the table "the New England Farmer" for June 5.—took it up, and looked to see what new ideas you had been coining; what new "notions" thou hadst discovered—who had raised the largest calf, or any or all the news, agricultural or horticultural, thou hadst gathered since last we met in print, and for a few minutes thy very self, in all thy editorial dignity, swam before my eyes.—"Well, Squire," said I, in a half-serious tone, "I hope you are not a *book farmer*—they say these book farmers are always trying experiments and getting some new notion into their heads, and want to get along easier; so at least they tell me at places where I stop."—"Well, Mr ——, I'll tell you why I take the Farmer, which is about the only one taken in the town. A friend who had removed to Boston sent me one some time ago which contained a new mode of ploughing the land, the season, way of manuring, &c. I thought for curiosity's sake I'd try it, but had no faith in it, as I thought we farmers knew better than the paper; but as I was well to do in the world,* I thought I could afford to spend a little time for pleasure, even if I reaped no advantage from it. I liked the success of the trial, and the next season I tried it again; and my land yielded so much more than it had formerly that I thought, perhaps I might find something else new in these Farmers—at any rate, I knew it would be pleasant reading them, and it was the cheapest reading I could get. So I sent for them, and I know, apart from my pleasure in reading them as they come, I have learned enough about

* This "well to do in the world" may sound *countryfied* to ears polite, but this is the phrase here to denote one who makes a good living, and is somewhat fore handed, to use another local phrase. Speaking of phrases and expressions, our country friends use some expressions which it is rather hard to comprehend—e. g. I accosted a man as I was riding along, who was at work in a corn field with "My friend, can you tell me how far it is to the Iron Works?" "Well, I don't know exactly—but it is *considerable of a piece*!"—Having obtained this very *concise* idea of the distance to the Iron Works, and being afraid that he would take offence if I asked him *how large a piece it might be*, I inquired, "What kind of a road is it?"—"Well, it's rather a roughish road"—which I found by sad experience consisted of hills half a mile long and up which my good horse and myself were obliged to fare alike—each footing it "on his own hook."

farming from them to pay me fifty times over. The fact is, I find they contain not only the theoretical ideas of many, but that many *practical* farmers send the Editor accounts of their cultivation—such as “D. C.” and “W. B.” whom I know from report to be among the best farmers in Massachusetts. I can tell you, sir, no money goes with a freer will than the two dollars and a half I send Mr Barrett every year.” And the thriving appearance of his farm showed that wherever he had got his theory of farming, the school was a good one.

At one of the places where I stopped to rest my horse today in looking around, I noticed the very thrifty appearance of the fruit trees. And this seems generally to be the case: the soil appears to be suited to the growth of fruit trees, and their hardy looking and fine forms showed that they might yield to the owner a bountiful supply of fruit. I did not ascertain whether they raised many cherry and plum trees, but should imagine the soil that bears the apple will also sustain these. I was not a little disappointed, however, to ascertain that nearly all the fine looking trees I saw around me were the original, miserable, unimproved fruit—and could not but look on it as an abuse of the bounties of Providence. The reason, as they informed me, why there were not more trees grafted was, the distance they generally lived from any large market, and the difficulty of procuring good scions for grafts. Neither of these objections, as it seems to me, is of much weight, as the difference between the increased price of good fruit, and the total unsaleableness of that now produced would amply pay all the trouble and expense of transportation. And by a number uniting and sending for a package of scions, the expense would be very small. Our friends Kenrick or Winship would furnish a liberal supply for a trifle. But the shoe pinched somewhere else—I found they were too apt to be disciples of the *well enough* school, and so long as the pigs and the children did not break their teeth in eating them, or die of dysentery, it was “well enough,” and there was no use in indulging in luxury. There were many good and excellent exceptions to these remarks, some of which I shall mention hereafter. I found great numbers of trees growing along by the stone walls, occupying room which would otherwise generally lie idle, and which as your correspondent “W. B.” very well observes, “throws only half its shadow on the farmer’s ground,” although I imagine they are seldom so well cultivated or managed as his orchard.

Your friend, RUSTICUS IN URBE.

Modest appearance, good humor, and prudence, make a gentleman.

SILK IN ESSEX COUNTY.

MESSRS EDITORS—I am glad to observe the symptoms of regeneration spreading in our goodly town; and I hope our business men and our men of money, will cherish the spirit of enterprise and improvement which is abroad in the land. It needs only a proper application of the means we possess, to make Salem what she ought to be. It is humiliating to see other places with but a tittle of the natural advantages we possess, taking the lead and far outstripping Salem in every thing of a business nature.

The bad tendency of this laxity of enterprise, and inactivity of our abundant capital, in driving from our community the “bone and sinew” of the town, has repeatedly been laid before us. But a new impulse has been given! Salem has awakened! Salem will prosper!

The object of this communication is to suggest the practicability of forming a company for the growth and manufacture of silk. The County of Essex possesses within itself all the advantages of raising and manufacturing an article which annually takes from the county thousands of dollars. The suggestion of the erection of a Manufactory for the production of silk fabrics is no visionary. It can be done. “Whatever man hat done, man may do,” is an old adage; and whers is the man, or where a nation that has performee a thing which a Yankee has not performed, od could not perform, with additions and improvements?

Some of the farmers of Essex, a few years since, in consequence of the suggestions of observing men, and the encouragement given by Agricultural Societies, planted very extensively the mulberry tree. They have probably upwards of 100,000 of them in full vigor, which would yield Silk amply sufficient to supply the wants of the county, and moreover leave a surplus for exportation. The culture of silk has from the first colonization of the country, more or less engaged the attention of the American People. As early as 1745, the colonies of Georgia and Virginia exported quantities of raw Silk to England. The manufacture of Sewing Silk has been carried on in Connecticut and Massachusetts very profitably for a number of years. “America is destined to become a rich silk growing and silk manufacturing country,” was the remark of a distinguished patron of domestic industry. It has been proved by actual experiment, that the quality of American silk is far superior to that of France or Italy and that the product from the same number of trees is greater.

I shall feel myself well repaid, if this communication serves to direct the attention of the friends of American Manufactures in Salem more particularly to this subject, being convinced that should

they act upon the suggestion of erecting a manufactory for the production of silk fabrics, they will find the experiment prove successful, thereby introducing a new article of commerce, and thus benefitting the whole nation, by saving to the country part of the immense amount which is annually paid for this article in the markets of France and England.—*Essex Register*.

SUCKERS ON INDIAN CORN.

Farmers have been divided in the opinion, whether it was best to deprive Indian corn of the suckers which are given out from the roots, &c. or not. We have been inclined to the opinion that it was best, considering them as depriving the kernel of food which it ought to have, and thereby lessening the crop.

Some statements in the last *Cultivator*, if correct, prove that it is wrong to cut them off; but that they should be allowed to spindle and become matured with the other stalks. Why this should be done will be best understood by stating a few items of the process of fertilizing the seeds of plants. It is a fact, that plants are both male and female, and that the yellow dust or pollen which is produced by a certain part of the flower must be received or a portion of it by another part of the flower or plant and conveyed to the seeds or they will never come to maturity. Now pollen, in Indian corn, is formed by the spindle, and this must descend upon the silk which is put out from the husk or ear, and be thence conveyed to the seed, and causes it to become matured or ripened. Hence the reason why some rows of corn in an ear or the tips of some ears, have no kernels; they have not received any pollen. The statement of the person alluded to is to the following purport, viz: The lower portion of kernels put out the silk first, and the higher ones, in succession—a new circle of them presenting themselves continually until they are all out and all impregnated. Now the male blossoms, on the spindle, do not remain in vigor more than six days, and if the weather be hot and dry not so long. There is danger therefore, that all the kernels will not become fertilized by the main stalks, but the suckers coming after in succession, will afford sufficient for the purpose, and the ears become filled. There is not the least doubt on the score of the necessity of the pollen of the spindle for rendering the kernel of the ear plump and good; but the question to be decided is—does the spindle of the main stalk ever fail of doing this? If it is common for them to do this, then the suckers, if they grow up and spindle in season, are absolutely necessary, and should never be cut down. It is a subject worth examining, and we hope our farmers will watch narrowly this summer and test the truth of it.—*Me. Farmer*.

MOWING MACHINE.—We have seen at the shop of Mr Johnson, in Cherry street, a mowing machine, which we are told is the first of the kind built in this country. The cutting operation is performed by circular knives fastened upon the periphery of a horizontal wheel five feet in diameter. This wheel is suspended upon a perpendicular iron shaft, which hangs upon a lever, by which the knives are raised or lowered at the pleasure of the driver to suit any unevenness in the ground. The motion is given by gearing, connected with the wheels, on which the whole machine rests. The machine will weigh a ton, and is moved by two horses. Upon the horizontal wheel, and just within the edge of the knives is a tub of light wood, which has the effect of carrying the mown grass into a swath. We see not but that the thing will work well on smooth land, but where there are rocks of much unevenness it cannot. It is said to be capable of mowing ten acres a day, and certainly, for the mower, it is much easier to ride on this machine, than to swing a common scythe. The machine was invented in England, but the laborers there, probably under the guide of some philanthropic leader, made war upon it, and would never permit it to be used in peace.—*N. Y. Jour. of Com.*

BROOM CORN.

The cultivation of Broom Corn is carried on to a very great extent on some of the alluvial lands on the Connecticut river, and in small patches in many of the interior towns. The towns of Hadley and Hatfield raise large quantities, which are manufactured into brooms, and distributed throughout the country. The seed is considered of about two thirds of the value of oats, and mixed with corn, makes an excellent provender for the fattening either of swine or neat cattle. The return of seed is somewhat precarious; but often it is abundant, and will more than pay the whole expense of cultivation and preparing the crop for the market. I have known a case in which 150 bushels of good seed have been obtained from an acre; and I have been assured, on good authority, of a still larger yield, though this is not frequently to be expected. One thousand pounds of broom to an acre is a very good crop. It will pay well for manuring and good culture. No crop is more beautiful than the standing corn when in perfection. It frequently attains a height of 12 to 15 feet. The stalks of the plant are very long and hard, and, therefore, rather difficult to load upon a cart. They are considered as of no value but for manure. The usual practice is to table the corn, that is, to cut off the top, or tassel, as the broom is called, about two feet from the top and bending the stalks of 2 rows together, lay it down until it is sea-

soned and fit to be carried in. The remainder of the stalks are then burnt in the spring in the field, and some little advantage is derived from the ashes. A much better way, it is thought, is, after gathering the crop to cut the stalks and lay them lengthwise in the rows, and plough them immediately under. They will become entirely decomposed by spring. A still better mode is to carry them into the cattle and sheep yards, where they become incorporated with the manure, and make a valuable addition to the compost heap.

The seed is planted in rows, wide enough apart for the plough to pass conveniently between them, and dropped in hills about eighteen inches from each other. Four or five stalks are considered sufficient to remain in a hill—more are sometimes allowed. The cultivation and manuring is more than for Indian corn. It may be manured in the hill or by spreading, or in both ways, as you have the means of high cultivation, which this plant will bear. The stalks are not eaten by cattle, nor even browsed by them; but I am not certain that the leaves would not furnish a good feed for young stock, if stripped early, when tender, well cured, as the Indian corn blades are cured at the south. What would be the effect of such mutilation upon the crop itself, and whether it would compensate for the labor, are inquiries which I am not able to answer, and in respect to which I cannot learn that any experiments have been made. It is an important subject for experiment. As it is at present managed, the plant returns little to the ground compared with Indian corn; and the Hadley and Hatfield farmers are obliged to connect with it the fattening of beef to a considerable extent, to furnish manure for their broom corn.

It is deemed a good crop when the broom commands five cents per pound. The price has heretofore been subject to great fluctuations. At one time it was the custom for every farmer to make up his own brooms, and then to go and sell them where he could. This was bad for all parties. It brought too many competitors into the market; and often unduly depressed the price, and the buyers were obliged to put up with an inferior article. Now the manufacturing and the growing of broom are in different hands; and the farmer, as soon as his broom is ready for the market, finds a purchaser at a steady price; and the manufacturer feels that his reputation, and consequently his success, are concerned in the quality of the article which he furnishes.

It is a little remarkable, that notwithstanding the extent and importance of this product, for one manufacturer within a few miles of me makes several hundred thousands of brooms a year, that in no book of agriculture in my possession can I find any account of the cultivation of this plant,

not even in that excellent New England work, "The Complete Farmer." The Shakers for a long time almost monopolized the raising of the plant and the manufacture of brooms; and their brooms, which, like the other manufactures of this industrious community, were always of a superior quality, usually commanded a high price, generally 42 cents or more. Corn brooms are now frequently sold from eight to twenty-five cents: but many of them are like Pindar's razors "made to sell." The Shakers, however, maintain the quality of their manufacture. The handles, in an unfinished state, are furnished for a cent apiece; the wiring and the tying on are usually done by the hundred. The scraping the seed from the brush is an unpleasant business, and often very injurious to the eyes. The manufacture, where it has been carried on extensively and with ample capital, has yielded encouraging profits.

An intelligent and enterprising farmer in my neighborhood, who last year cultivated three acres and one half of broom corn in our alluvial meadows, has been kind enough to furnish me a detailed account of the expense of cultivating an acre, which may be relied on for its exactness, but in which the rate of labor is probably overestimated by the day. His broom was sold in the autumn at eight and one half cents per pound. It readily commands this spring 12½ cents; had he fortunately retained his broom until this time, the profits would have been greatly enhanced, while the expenses would, of course, have remained the same.

Account of the expenses of cultivating an acre of Broom Corn in Deerfield meadows, in the year 1832, by Mr Alvah Hawkes:

One ploughing, 12th May,	-	-	\$1,25
Hoeing out, one third of a day's work,			34
en loads of manure, at 75 cents,	-	-	7,50
Putting manure in the hill,	-	-	2,00
Planting, one day's work,	-	-	1,00
Seed, 4 quarts, at 75 cents per bushel,			10
Hoeing, first time 3½ days,	-	-	3,00
do. 2d do. 3 do	-	-	2,50
do. 3d do. 2½ do.	-	-	2,50
Horse and boy to plough for the season,			1,00
Tabling and cutting, 4 days,	-	-	4,00
Gathering, carting, and packing away,			2,50
			<hr/>
			\$28,68

The expense of cultivating one acre is \$28,68 cents, the labor being rated at one dollar per day, which is more than the actual cost, as I hired my laborers by the month, at from six to ten dollars per month. The yield was at the rate of 991 pounds to the acre. Had all my ground been

fully stocked, it would have exceeded ten hundred pounds per acre.

The expense of scraping the brush for the seed was thirtythree cents per hundred pounds. The brush was sold at 8½ cents per pound. The crop of seed was light and poor; fifty bushels to three acres, worth 16¼ cents per bushel, or \$8,33 to an acre.

Summary expense of cultivation of one acre as above, - - -	28,68
Scraping 1000 pounds, - - -	3,30
Board of man 5 days, - - -	1,07
Rent of land, say \$16 per acre, -	16,00
	<hr/>
	49,05
Sale of brush, 1000 lbs. at 8½ c.	85,00
Seed upon one acre, -	8,33
	<hr/>
	93,33
	<hr/>
Nett profit on one acre,	\$44,28

The sale of the brush at 12 cents per pounds, the present price, would have enhanced the profits forty dollars, and made them \$84,28. This is very remarkable, and certainly affords ample encouragement to labor. That it can be often done is not to be expected; and yet there is nothing extraordinary in the process. The uncertainty of the seasons is something, and the fluctuations in the market prices of broom are great. The amount of crop, though large, was not more than can usually be commanded by good and generous cultivation. Many of our lands, besides the alluvial meadows, are capable of producing good crops; and the great yield of 150 bushels of seed to the acre mentioned above, with broom, of course, in proportion, was produced in one of the most rough and rocky towns in the commonwealth, and on land which owed everything to good management. I hope the length of these details may be excused. H. C.]—*N. Y. Farmer.*

Meadowbanks, 7th May, 1835.

CURE FOR THE SCAB IN SHEEP.

I feel a reluctance thus publicly to appear in print: and had it not been that the communication to which I am about to allude (I presume) is signed with a real name, I might not have troubled myself to expose some of its errors, and save my brother farmers from loss and disappointment. Although I thus write, I could wish more of the correspondents of the "Farmer" would favor its readers with their real names, more particularly on all practical operations, inasmuch as it would give more respectability and weight to their communications.

Mercurial Ointment for the Scab on Sheep, is almost universally known by Flock Masters in Britain, to be a cure for the disease if applied to

the infected parts, but it is of so objectionable a nature, that but comparatively few resort to its use; and however safe Erastus Crafts may speak of "its entire efficacy" from *his own experience*, I can testify that in the *moist* atmosphere of England, such a free use as he recommends, would most certainly produce salivation, and probably death ensue. Lest any of the readers of the "Farmer" should make a *rash* use of this violent specific, induces me to put them on their guard and to recommend if they do use it, that they first apply a small portion to the diseased parts, rubbing it in well with the finger; and between the shoulders on the centre of the back between the pins, rub in *well* a piece about the size of a hickory nut; by so doing it prevents the sheep biting or licking the parts anointed, which it will endeavor to do, caused by the irritation produced. If the sheep succeeds in getting but a small portion of the ointment, it so irritates the mouth as generally to induce cold, and oftentimes worse consequences; I have known instances with this use of the ointment, produce on the sheep's back a perforation of small holes. On all occasions of using Mercurial Ointment, dry weather should be selected. Erastus Crafts says "October is the best time to apply the ointment." *It may* suit this climate, but in England it would generally be thought too late in the year. Before concluding, I must advise the readers of the "Genesee Farmer" to be very cautious how they apply this remedy to ewes in lamb, for if they are not, they will find the ewes will cast their lambs from the effects of Mercurial application.

It is a true adage, "One mend-fault is worth two find faults," and by thy permission will act on it, and give a recipe that I have found excellent for the cure of scab, and it may be safely used at all times and under all circumstances. It is also beneficial in destroying lice and ticks on sheep, and will not for a length of time leave a stain on the wool or carcass. It seems almost unnecessary to remark that immediately after shearing is the best and most effectual time to dress for scab, it being then easily perceived, but it is too often deferred to a season of the year when it can be attended to at cost of less valuable time. This delay causes the disease to spread in the flock and when the time does come to endeavor to effect a cure, it may be the trouble is increased ten or more times to what it would have been had it been attended to seasonably.

Well boil one pound of tobacco in a gallon of beef brine or chamber lye. After straining it, dissolve one ounce of corrosive sublimate, and add to it also half a pint of each spirits of turpentine and train oil; to be applied by irritating the diseased parts and then pouring a portion from a bottle through a quill in the cork, and also by part-

ing the wool from head to tail and pouring such a quantity as may cause some of it to run down the sides of the sheep, observing to keep the mixture incorporated, which will be effected by often shaking the bottle.

With wishes for an extensive circulation of thy paper, I am thy friend.—*J. C. Fuller, in the Genesee Farmer.*

PRESERVATION OF BUTTER,

MR FESSENDEN—

DEAR SIR—Will you inform me which is the best kind of salt to be used in making butter?—Also how to pulverize rock salt, and oblige yours,
A SUBSCRIBER.

By the Editor.—There have been some differences in opinion expressed by agriculturists and economists relative to the kind of salt, which is best to be used for preserving butter. John Prince, Esq. procured eight samples of different sorts to be analysed by Dr Webster, Professor of Chemistry of Harvard University, and the kinds of salt and the results of their analysis are given in the *New England Farmer*, vol. xi. p. 336. Mr Prince draws the following conclusion from the process alluded to, viz:

“After the examination of the different salts usually for sale in our market, I trust there need be no longer any fear in using them, on account of any bad properties they may have been supposed to possess; only bearing in mind that they should be used by *weight*, not *measure*. If for butter I have no doubt the fine *Liverpool** (or *Eastport*) is as good as any other, provided the butter be well made and thoroughly worked.

“I have for many years had no other used, till the past year I purchased the best Turk’s Island I could find, and had it well washed and ground fine. We do not perceive the least difference in the butter, having used precisely the *same weight*.

“There is no doubt for packing *meat and fish* the *coarsest* salt should be used, as keeping the meat separate and being longer in dissolving.”

* Some writers in the *New England Farmer* had expressed an opinion that *Liverpool* salt was unwholesome and unfit for use.

[From the *New England Farmer*.]

MR FESSENDEN,

DEAR SIR—I have seen several receipts recently in your useful paper for destroying ticks on sheep, but if the following simple remedy is tried it will be found more efficacious, than any *tobacco ablutions* which have been recommended. Catch the sheep and open the wool on the back of the neck and down the shoulders and sprinkle in about a teaspoonful of Scotch snuff and every tick on the sheep will be dead in twentyfour hours.

As the sheep are now destitute of their fleeces the lambs ought to be all caught and snuffed in this way, as they will be kept poor by the ticks which will now leave their mothers and take to them for a warmer shelter. S.

Stockbridge, July 11, 1835.

Recipe for destroying Vermin of all kinds which infest Plants.

Take of black soap (common soft soap) two and one half pounds, flour of sulphur, two and one half pounds, mushrooms of any kind two pounds, water sixteen gallons; divide the water into equal parts, put half the water in a cask with the soap and mushrooms, after having bruised them a little: the other half of the water is to be boiled in a kettle with the sulphur enclosed in a bag and fixed to the bottom, with a stone or any other weight, during the ebullition of about twenty minutes. The bag must be stirred about with a stick the better to impregnate the water, (by augmenting the ingredients the effect will be more sensible); the water that has been thus boiled, must then be poured into the cask and daily stirred with a stick, until it acquires the highest degree of rankness, care being always taken to cover up the cask after the water has been stirred. This composition is to be sprinkled or injected on the plants infested, and it will at the first injection destroy the greater part of the insects, but will require frequent repetitions to destroy those that live under ground, especially the ants. Two ounces of nuxvomica added to the above composition, and boiled with the sulphur, will render the recipe still more effectual, especially when ants are to be destroyed. From experience I can say that nothing I ever tried has proved so efficacious in destroying insects, and at the same time it makes the plants grow luxuriantly. S.

Stockbridge, July 11, 1835.

By the Editor.—We are much obliged by the receipt of the above, and the more so on account of the efficacy of the prescriptions having been tested by the experiments of the gentleman who is so good as to communicate them. Further favors from the same hand would be gratefully received.

HIGH GROUND FOR MULBERRY PLANTATIONS.

Capt. A Holcomb, of Sterling, Mass., has a fine orchard of mulberry trees 40 years old, upon which he is this year feeding his silk worms, which are very thriving. Capt. Holcomb’s farm is situated on high lands, and the white mulberry and *Morus Multicaulis* have withstood the severity of the last winter extremely well, while in low grounds they have been cut off.—*N. E. Farmer.*

[From the New England Farmer.]

NOTES BY THE WAY--NO. 3.

In addition to the obstacles to the culture of good fruit mentioned in my last communication, I found that the Temperance Reformation, was also adding a mite to the common mass of destruction. [1.] I was informed by many where I saw fine looking fruit trees lying in the fields, which had fallen before the axe of the farmer, that they had cut these trees down because the cider which they formerly made from the apples was not saleable, owing to the prevailing idea that this cider drinking was a species of intemperance. [2.] I was extremely happy to witness such a progress in the onward march of so good a cause; but I must confess this seems to me rather a refinement in temperance. I cannot believe that our farmers, who are used to their mug of cider at morning, noon and evening, degenerate in many cases into drunkards, and if any do become tipplers, I think the reason may be traced to some other source beside cider drinking. What say you, Mr Editor; are we farmers likely to become tipplers from using cider—I have read sundry sage monitions from thy prolific pen on this high and holy cause of Temperance, but I do not recollect that you told us to beware of cider. Thy address to sundry soldiers in the war against intemperance at Charlestown, delivered “lang syne,” surely said nought about *cider*, to say nothing of the many by-way thrusts thou hast given the monster.—Has the grave and watchful Dr Caustic been derelict in duty, or can we still drink cider with a good conscience? (3.) I will, however, in the absence of thy advice and counsel remark that it is an established point that in those countries where light native wines are most abundant there is the least intemperance.—Can we not consider cider as at present standing in the same relation to our farmers that “light native wines” do to the inhabitants of the vine clad fields of Europe?—(4.)

While speaking of Temperance, permit me to enter my protest against a sentiment contained in No. 1, of the current volume of the Farmer, copied from the Vermont State Journal. I cannot vouch for the “Green Mountain Boys,” having no personal acquaintance with them—but so far as the farmers of Maine, Massachusetts, and New Hampshire are concerned, I can safely say the assertion is unfounded. In describing a good and bad farmer, the writer says, “*Ninety nine times in a hundred the difference is owing to intemperance and the evils which follow in its train.*”

I do not believe that this accusation will hold good with any class of men—I know it will not with the farmer. It is an old maxim, “to give even old Nick his due;” let us farmers have no more put on us than is our due, and we can trudge on very well. I dislike these wholesale assertions

—they never did good to any cause, and such a good cause as Temperance needs not false assertions for its support. I thank heaven, that the farmer, however guilty he may be in many cases of negligence and carelessness, to the detriment of his own true interests, is more generally than any other class, guiltless of the charge of making himself worse than the brute. He may be guilty in many cases of the sins of *omission*, but is to a greater degree than most classes of society, innocent of those of *commission*.

In my conversations with the farmers in this part of the state, I find the difficulty of transportation, to be a general subject of complaint and an obstacle to the prosperity of the cultivator. It appears to me, however, this is more imaginary than real; there are many articles which would command a market at their doors, and many others which might be introduced, which would cost but a trifle for their transportation to market.—Will you, Mr Fessenden, or some of your practical correspondents, give us of the Granite State, a word of advice as to what would be the most profitable culture for our soil, climate, &c.? Why would not the mulberry grow well on our rocky, but strong soils—if we can raise the mulberries, we have little hands enough for the tending the worms. Perhaps Mr Kenrick or Mr Cobb, or somebody who has tried this business, will give us their advice and instruction in this matter. Or perhaps you can tell us how we may make our lands more profitable still. They say “up country,” the Editor of the Farmer has studied so long at farming, that he raises his cabbages and corn on a sheet of paper, in one corner of his study—and his corn and wheat on his house top, merely for experiment’s sake.(5.) Be this as it may, wilt thou, respected sir, please to inform us if you can how we may “bring our” produce “to a fine market,” or what we shall raise to bring to market at the least expense for transportation.

Speaking of what “they say” up here in New Hampshire, they tell a story about the “great man” of one of the towns about here, which “they say” is literally true. A traveller was riding along through one of the villages, not remarkable for its thriftiness; he came at length to a part which looked thrifty and flourishing. He found on inquiry this was the town of B——. And every one seemed duly impressed with the grandeur and riches of the owner of many of the most extensive and fine farms, and they thought he was “a little the greatest man they ever did see.” As our traveller was riding along, he accosted a man with, “Friend, whose fine farm is this?” “Oh, that’s Judge H.’s,” replied he of the plough. The next fine thing he saw was a beautiful orchard, and he asked a lad whose orchard that was. “That? oh, that’s Judge H.’s!” A splen-

did house, with outbuildings, &c. in the same style next struck his attention, and he inquired who lived there. "Judge H." was the reply. His next interruption was near a school-house, where the boys "all in a row," pulled off their hats, and the girls dropped their curtsey as regularly as if it had been done by machinery. Having the organ of *philoprogenitiveness* well developed, he entered into a confab with them. "Who owns the school-house?" asked he. "Judge H." "Who hires the school-ma'am?" "Judge H." (He was a school-committee man.) By and by he asked the very common question, "Who made you, my little man?" "Judge H.!" was the serious reply.

G——, JUNE 19.

I stopped today at the hospitable mansion of Mr P——, about two miles from the delightful village at Meredith Bridge, after a ride through a succession of fine scenery. On each side of us were hills, over which, the air being light, and a rain-storm threatening, the clouds rolled in all their still and magnificent grandeur. The bright and beautiful sky above and beyond the low flying clouds, seemed like glimpses of a brighter world beyond and above this dull earth of ours. It is in such scenes as these, the lover of the grand and beautiful in nature reaps a full reward for the "peltings of the pitiless storm" to which he may be exposed in his pilgrimage. To those who have breathed the pure air of the mountain, or sported amid the green vales of the country; in youth, it brings up to remembrance all their childish delight in these scenes, and many a sigh is cast for past joys, and the wish half uttered that, for a while, the cold cares of manhood might be forgotten, and their hearts might be as light and careless as when "their nights and days were full of joy."

"Yes, when thy heart in its pride would stray
From the pure first loves of its youth away;
When the sullyng breath of the world would come
O'er the flowers it brought from its childhood's home—
Think thou again of the woody glade,
And the sound by the rustling ivy made;
Think of the tree at thy father's door,
And the kindly spell shall have power once more."

But I am wandering, as usual, from my subject. I found Mr P——'s farm one of the best I had seen in my journey. His barns large and commodious—his tools in fine order, and of the best kind—out-houses and fences neat and in good repair—his orchard, except that it was rather too thick set, very fine. It was the residence of one who takes a pride in being a farmer, and who thinks a thing is not "well enough," so long as it can be made better. Mr P—— raises apples of all kinds, so that he can have a continued succession, from the earliest to the latest, and this part

of his farm is a good source of income. In my walk about his farm, in the evening, I missed a fine looking lot of cattle I had seen driven into the yard; and on inquiring, I found he drove them every night on to about an acre of land, previously fenced in, where he folded them, in order to manure the ground for raising corn the next season. This mode of manuring struck me as a good one, and he assured me he had found it the best way to manage his corn lands. I shall not now enter into any details as to his mode of proceeding, his success, &c., as I hope he will give us, through your columns, his experience in this process of manuring, its results, &c. From his known interest in the welfare of his brother farmers, I have no doubt he will feel willing to send you a full account of his mode of raising corn, and also of his many improvements on his farm, and thus insure the thanks of many of the inexperienced.

Your friend, RUSTICUS IN URBE.

NOTES BY THE EDITOR.

1. The principles of temperance, rightly understood, tend to the introduction and culture, instead of the destruction of fruit trees. They would lead us, however, to the exclusive propagation of those fruits which are best for the table and culinary purposes. It has often, and we believe justly, been observed by the celebrated Mr Knight, and others, in substance, that good fruit is not only a substitute for, and an antidote against ardent spirit, but a taste for fruit is incompatible and cannot co-exist with an appetite for intoxicating liquors.

2. Apples may be applied to other purposes besides that of cider making. Their uses for the kitchen, the parlor, the sick chamber, &c. are not only unobjectionable, but very salutary. Even before it was the fashion to talk about temperance, when cider drinking was considered indispensable to good living, not one farmer in ten made any money by making cider, "for it cost more than it came to." Besides, it has been found that apples are good for swine. [See N. E. Farmer, vol. xiii. p. 100, 116.] If a farmer should set fire to his ripe crop of rye, for fear it should be made into whiskey, he would not be more foolish than those who destroy their orchards lest apples should be made into cider; which is almost the only *bad* use of which apples are susceptible. If a fruit tree does not produce good fruit, let it be grafted from some other which does; but unless rotten or worn out by age, let it not be destroyed as worthless.

3. In the address to which our correspondent alludes, the practice of giving cider to children is condemned, as creating an unnatural appetite for intoxicating drink—p. 8. Likewise, a table is ap-

pended in the pamphlet containing that address, from Brande's Manual of Chemistry, by which it appears that strong cider is composed of about one fifth alcohol—p. 43. Brandy and gin are said by the same author to contain almost one half alcohol. "A bottle of Madeira," said M. Brande, "has in it nearly a pint of proof spirit; a quart of strong cider, more than six ounces; and a bottle of ale, about four ounces." Alcohol is the evil spirit with which the advocates of temperance are contending; and whether the demon puts on the shape of wine, rum, gin, brandy or cider, is a matter of little comparative consequence. Alcohol, however, is of use in the arts, and perhaps sometimes in medicine, and the same may be said of arsenic and other poisonous substances. We do not always refuse a glass of wine, nor a tumbler of beer or cider, (though of late years we never take ardent spirit) but we believe that abstinence from fermented liquors, including cider, as well as distilled spirit, is alone consistent with the genuine canons of temperance. If an old farmer, like us, the wrong side of 50, wishes for a little cider, let him have it; and if he does not drink more than a pint a day, we won't put him in the newspaper. But the young folks are better off without it. In the cider counties in England, the farmers in the habit of drinking cider, are visited with gout as decidedly severe and genteel as ever twinged the great toe of a nobleman.

4. We doubt whether the people in wine countries are so very temperate. We have testimony that intoxication is common in France. See a letter from J. F. Cooper, Esq.—N. E. Farmer, vol. xi. p. 413.

5. The Editor's practical knowledge of husbandry was obtained from hard work on a farm, from infancy till he was nearly twenty-one years of age; and since that time, he has always been somewhat attentive to agricultural pursuits and improvements. Every sort of work performed in the ordinary routine of farm cultivation, is as familiar to us as to any other farmer who ever followed that occupation (as we once did) in New Hampshire—in which State, and near Connecticut river, we had the honor to be born and brought up.

WHY SHOULDN'T A FARMER KNOW A THING OR TWO?—Why should not a farmer know more than other folks? They certainly ought to, for they have in this country more to do than others. They have to make more use of the powers or laws of nature than other folks; they have to use the elements for tools—they are indeed practical chemists (whether they are aware of it or not,) for they have to make use of the various substances which nature gives them—they have to combine,

separate, modify, and change, both simple and compounds. Their farm is at one and the same time a laboratory and a workshop, and in proportion as they operate in such a way as to afford the several elements of which the substances are composed, and upon which they are operating, to disunite or combine will be their success. They depend upon the vegetable world for subsistence—their labor is among and upon the plants of the earth—why should they not know the proper name and nature of every tree and herb and plant? They have to contend with insects and animals—why should they not know the habits and the natures of these as well or better than any other class of people? They have to work upon the earth, they have to put it into a condition to bear a good crop, they have to change the state of it and adapt it to the various purposes and crops,—why should they not know more and better respecting the ingredients of their soils—the various mineral or fossil substances which they may find either upon their own or other's farms? They have to "discern the face of the sky," and watch the changes of the atmosphere, and regulate their movements in accordance to the changes of the weather, temperature, &c. Why should they not know as much or more of the composition of the air or atmosphere, and the science of meteorology, than any other people? They must use tools or implements of labor. They must take advantage of the principles of mechanics, and the application of mathematics to practical life. Is there any good reason why they should not know as much or more than others, respecting the science of Mechanics or Natural Philosophy. In this country they have to contribute largely to the support and formation of the government, and upon them depends the election of rulers and lawmakers—why should they not understand the fundamental principles of national law—political science, and political economy? They have to administer to the sickness of animals under their charge,—heal wounded and restore health,—why should they not perfectly understand comparative anatomy, at least, and also physiology and treatment of diseases, as well as any others? Indeed, so wide is the field of his labors, so numerous the objects with which he is connected, so various the operations which he has to perform, that we verily think a farmer ought to be the most learned man on earth.

FARMERS' PROSPECTS.—The gloom and long faces so manifest among this class of our fellow citizens, is, we are happy to observe, rapidly passing off. Never was there better weather for the crops of grass, corn, oats, and potatoes, than we have had for a week or two past, and these and most other kinds of crops now look very promising.—*Rutland Herald.*

SILK IN FRYEBURG, MAINE.

T. G. FESSENDEN, ESQ.

SIR—By sending you the names of two of my neighbors for subscribers to your Silk Manual, I would say a few words about the progress I have made in the business, as expect to pay the postage of this letter, there will be no additional expense to be paid. This is the fourth year that I have fed a few worms; have now something like two thousand which have done very well, they are now making their cocoons, have had none sick, nor have any died. The young worms began to appear the fifth day of June; we kept them three weeks on a table in the house, when they wanted more room, and our folks were weaving, and made so much noise, we concluded to remove them to our hop house. Secing in some of the back numbers of the New England Farmer, that a gentleman made some twine netting for them to feed upon, I intended to have prepared some for mine, was prevented by sickness from doing it myself, but my wife and daughter, who took the care of them thought of a pigeon net we had. They unstrung it, the meshes being too large, they stretched it in length which brought the threads of it closer together, so that it answered completely well; it let all the excrement and some of the small parts of leaves fall down through and made a great saving of cleaning the litter away from them; there ought to be tables underneath the netting, as there will be some fall down through, to stop them from falling to the floor, the space of $1\frac{1}{2}$ inches would be sufficient, as they then would get up again themselves when fresh leaves were put on; a common pigeon net might be so managed as to contain 3000 worms that were full grown. A lattice work of twine might be made very cheap, by taking strips of inch boards, two inches wide, nailing them together at the ends, and lacing twine across about half an inch apart, sufficient to contain any number of worms, and from the little experience I have had, the labor saved in clearing away the litter would amply pay for making the netting or lattice shelves.

I would also, as I am writing, say a few words respecting the Chinese mulberry; I have six, for which I paid in Boston two years ago last spring, six dollars, besides other expenses from that place to Fryeburg. I set them out, they all took root, three of them I put in a rich loam, the other three I set in stony ground, the south easterly side of a stone wall. The first three grew very luxuriantly; had leaves 11 inches wide and the same in length; but they all died down to the ground; they came up again next spring and had a heavy foliage. The last winter killed them all down but one, which lived, one and a half feet high, which was in the stony ground sheltered by the

wall.* I have some hopes that they will become acclimated, but how that will prove, time only must bring forth. The winter was extremely severe here upon all trees in this vicinity.

Yours very respectfully,

JAMES WALKER.

Fryeburg, 21 July, 1835.

BRIGHTON MARKET,—MONDAY, AUGUST 3, 1835.

Reported for the Daily Advertiser & Patriot.

At Market, 510 Beef Cattle, 25 Cows and Calves, 2940 Sheep, and 260 Swine. About 150 Beef Cattle, and 120 Sheep, where at market last week. 50 Beef Cattle, and 100 Swine remain unsold.

PRICES.—Beef Cattle—We quote to conform to last week—a very few fine at 34s 6d; prime at 31s 6d. a 33s; good at 29s a 30s 9d; thin at 24s a 28s 6d.

Cows and Calves—Good Cows are much inquired for.—Sales at 18, 23, 25, 27, 30, and \$37.

Sheep—Sales quick. Ordinary at 8s, 9s and 16s 6d; middling 11s 3d, 12s, and 12s 6d; better qualities 13s 6d, 14s, and 15s; Wethers 15s, 16s 6d, 18s, and 21s.

Swine—Market full—very few wanted at retail. A lot of about 150 changed hands at about 4 l-8c, two thirds small pigs. At retail, 5 and 6 for large, and 6 and 7 for small.

WHITE MULBERRY SEED, Growth of 1835.

Just received 50 lbs. of White Mulberry Seed growth of 1835, saved with much care from good, thrifty trees, expressly for the New England Seed Store. For sale by

GEORGE C. BARRETT.

N. B.—As the quantity will probably be inadequate for the demand the next season orders should be sent early.

July 29.

WHITE MULBERRY TREES WANTED.

The subscriber is desirous of purchasing 100,000 White Mulberry Trees, 3 years old, thrifty and of good size, for which \$3 per 100 will be paid

G. C. BARRETT.

Boston, July 29, 1835.

SILK COCOONS WANTED.

! The subscriber, encouraged by the late act of the Legislature to reel and throw American Silk, wishes to purchase at the Agricultural Warehouse in Boston, Silk Cocoons, and will pay \$3 per bushel for the best, and in proportion for poorer ones.

[m6]

G. C. BARRETT.

VALUABLE WORK ON FRUITS, VEGETABLES, SILK, &c.

Just published and for sale by GEO. C. BARRETT, THE NEW AMERICAN ORCHARDIST, or an account of the MOST VALUABLE VARIETIES OF FRUIT, of all climates, adapted to cultivation in the United States, with their history, modes of culture, management, uses, &c., and the CULTURE OF SILK; with an Appendix on VEGETABLES, ORNAMENTAL TREES and FLOWERS. By WILLIAM KENRICK.

A new edition, enlarged and improved. A chapter on "Climate" another chapter on Modern or Landscape Gardens, —also, a Practical Treatise on Mulberry Plantations, and the Culture of Silk, and the whole Class of Vegetables being now for the first time added and all that relates to them.

1 vol. 12mo. 420 pages elegantly bound. Price \$1.

CHERRY STONES WANTED,

For which a liberal price will be paid. Apply at the office of the New Eng and Farmer. July 15.

SILVER FIRS, &c.

WILLIAM MANN of Bangor, Me. will execute at short notice orders for Silver Firs, Evergreens, &c. well packed and in good order. April 8.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES,	barrel	3 50	5 00
BEANS, white,	bushel	1 50	1 37
BEEF, mess, (new)	barrel	13 00	13 50
Cargo, No. 1.	"	11 50	12 00
prime,	"	9 00	9 50
BEEFWAX, (American)	pound	20	24
BUTTER inspected, No. 1,	"	18	20
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	40	45
southern, geese,	"	35	39
FLAX, American,	"	9	10
FLAXSEED,	bushel	1 25	1 37
FLOUR, Genesee, cash	barrel	7 35	7 50
Baltimore, Howard street,	"	7 00	7 12
Baltimore, wharf,	"	6 87	7 00
Alexandria,	"	7 00	7 00
GRAIN, Corn, northern yellow	bushel	1 09	1 11
southern yellow	"	1 00	1 07
white,	"	1 03	1 05
Rye, northern, none.	"		
Barley,	"		
Oats, northern, (prime)	"	70	73
HAY, best English,	ton	22 00	25 00
eastern scrawed,	"	16 00	17 00
hard pressed,	"	17 00	20 00
HONEY,	gallon	37	42
Hops, 1st quality	pound	13	14
2d quality	"		
LARD, Boston, 1st sort,	"	11	12
southern, 1st sort,	"	9	10
do, upper,	"	19	20
dry hide, sole,	"	12	14
do, upper,	"	19	21
do, upper,	"	18	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	1 00	1 04
PORK, Mass. inspect. extra clear,	barrel	20 50	21 00
Navy, mess,	"	16 00	16 50
bone, middlings,	"		
SEEDS, Herd's Grass,	bushel	2 25	2 37
Red Top,	"	75	87
Red Clover, northern,	pound	8	9
White Dutch Honeysuckle,	"	25	33
SILK COCOONS, (American)	bushel	2 75	3 00
TALLOW, tried,	cwt.	7 50	8 00
WOOL, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	62	65
do. 3-4ths do.	"	50	55
do. 1-2 do.	"	42	50
do. 1-4 and common	"	45	47
Native washed	"	38	60
Northern pulled,	"	60	65
Pulled superfine,	"	52	55
1st Lambs,	"	38	42
2d do.	"	35	42
3d do.	"	25	30
1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	12	13
southern, none.	"		
PORK, whole hogs,	"	6	5
POULTRY,	"	10	17
BUTTER, (tub)	"	18	20
lump	"	24	23
EGGS,	dozen	15	18
POTATOES,	bushel	50	56
CIDER,	barrel	3 50	4 00

VALUABLE WORK ON AGRICULTURE.

This Day published by GEO. C. BARRETT, THE COMPLETE FARMER AND RURAL ECONOMIST. By T. G. FESSENDEN. Second edition, revised and improved by the Author, with considerable additions.

The first edition was published last season, and the sale was rapid beyond precedent for a work of this kind. The present improved and stereotyped impression has still higher recommendations to public patronage, and cannot fail to prove still more useful to the community of cultivators.

This work has met with decided and universal approbation from the most competent judges. Among the written and printed recommendatory notices are those of the Hon. JOHN LOWELL and Rev. HENRY COLMAN. The Editors of the New York Farmer, the New England Magazine, the Maine Farmer, Loudon's Gardener's Magazine, &c. have given favorable critiques of the Complete Farmer. We shall subjoin Mr Lowell's notice, and propose in some future number to publish those of the other gentlemen who have honored the work with their approbation.

"Roxbury, April 6, 1835.

"Having perused with attention the Complete Farmer and Rural Economist, by Thomas G. Fessenden, Esq. in its first edition, and having recently revised it at his request, preparatory to a second edition, I am of opinion that it is a valuable compendium and useful work. Those who know that the science of Agriculture is so extensive as to fill twelve quarto volumes in the celebrated French work of the Abbe Rozier, and a space not less in English works, will not expect in such an abridgement full details in any one branch of that extensive and varied art. But I know of no abridged work in the French or English languages which conveys more instruction in so small a compass than this work of Mr Fessenden.

JOHN LOWELL."

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A most extensive variety of Fruit Trees, consisting of the finest kinds of New Flemish Pears.—Also, Apples, Cherries, Peaches, Plums, Nectarines, Almonds, Quinces, Grape Vines, Currants, Raspberries, fine imported Lancashire Gooseberries, selections from the best varieties known. MULBERRIES FOR SILK, at a liberal discount, by the hundred or thousand, including the Chinese Mulberry or MORUS MULTICAULIS.

Ornamental Trees and Shrubs and Roses about one thousand finest kinds. Also, Herbaceous flowering plants, Pæonies and splendid Double Dahlias.

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August 5.

MULBERRY TREES.

The New England Silk Company being desirous of extending the cultivation of the Mulberry Tree, offer for sale, 250,000 White Mulberry Trees, suitable for transplanting this fall, none less than three feet in height.

The Trees will be safely packed in bundles of one hundred each, price five dollars the bundle, deliverable in Boston.

Those who intend to set out Mulberry Trees this fall, are requested to send in their orders forthwith. The Trees to be delivered in October and November.

It is unnecessary for the Company to make any observations respecting the advantages of a Plantation of Mulberry Trees and the raising of Silk Worms; they will merely observe that they pay cash for Mulberry Seed, and for Cocoons in any quantity.

LEMUEL BLAKE, Actuary.

August 5.

No. 16 Devonshire Street.

F E S S E N D E N ' S

S I L K M A N U A L ,

AND

P R A C T I C A L F A R M E R .

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I. BOSTON, SEPTEMBER, 1835. NO. 5.

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BOSTON, SEPTEMBER, 1835.

**FACTS AND OBSERVATIONS RELATIVE TO
 THE CULTURE OF SILK.**

SILK AS A NON-CONDUCTOR OF ELECTRICITY AND A HEALTHY ARTICLE OF APPAREL.—It is well known that electricity is a very powerful as well as mysterious agent; and it is believed to be true that a certain proportion of that extremely subtle, and generally invisible fluid, is as necessary to good health as air to animal life. When there is a want of a due supply of electricity in our bodies, we are languid, low spirited, and suffer under a sort of *tedium vitæ*, (weariness of life,) which is quite as insupportable as actual and acute pain. When these feelings occur, we complain of hypochondria, and a want of energy, mental and corporeal—the world seems a blank, and existence a burthen. We do not suspect, what is most commonly the case, that a damp atmosphere is every moment robbing us of *electricity*, by virtue of its powers as a conductor or carrier of that indispensable requisite to health and enjoyment.

In dry weather, whether the air be warm, or cold, we feel light and vigorous, because dry air being a slow conductor of electricity leaves us to enjoy its luxuries, and we are in what is called good spirits. But in wet weather, when

“Steep’d in continual rains, or with raw fogs
 Bedew’d, our seasons droop; incumbered still
 A pond’rous heav’n o’erwhelms the sinking soul;”

we feel oppressed and heavy as if we had suddenly become inmates of the “*Castle of Indolence*,” where

———“Lethargy, with deadly sleep oppress,
 Stretched on his back, a mighty lubbard, lies
 Heaving his sides, and snoring night and day.”

If, however, we can retain in the corporeal system in wet weather, the electricity which is the source, if not identical with animal spirits, that indescribable feeling of enjoyment which flows from vigorous health is ours in full extent. This can only be accomplished by keeping our bodies enclosed by non-conductors of the electric fluid. And the best non-conducting substance is silk, which is so excellent a barrier against the transmission of that subtle but mighty agent, that the most vivid and powerful discharge which ever emanated from Heaven’s electrical apparatus, in the flash of lightning and the roar of thunder, cannot pass through a silk handkerchief of the slightest texture, provided it be thoroughly dry. Persons, therefore, of feeble animation, who are apt to become listless and low-spirited in damp weather, will find silk waistcoats, drawers, and stockings, the most perfect, powerful and innocent of all cordials. Flannel will answer a similar purpose, but in a smaller degree. Wash-leather is also a non-conductor of electricity, and may be used by those who prefer it, but is more apt to be clogged by perspirable matter, issuing from the pores. Silk is, however, on every account the best; and those who are averse to the wearing of flannel next to the skin will find equal benefit by substituting cotton shirts, drawers and stockings, with silk over them; or where more heat is required, flannel between the cotton and silk, for the silk should always be outermost.

An English writer says—“Silk should be used in every possible way by the weak, in the linings

of sleeves, in the stiffenings of neck cloths, in the entire backs of surtouts, cloaks, mantles, and even in the coverlets of beds, &c. and where health is in question, it will be found to be the most economical stuff that can be used, as it will save many an apothecary's bill. When it can be made a principal means of preventing consumption, rheumatism, gout, inflammation, melancholy, madness, and even suicide itself, no expense ought to be spared."

General Directions to American Planters and Farmers for the Raising of Silk Worms, by J. D'Hormergue.

[Concluded from our last.]

ON THE REARING OF SILK WORMS.

In Europe the silk worms, after they are hatched are generally laid, with the leaves on which they are feeding, on wicker hurdles, in order, as it is thought, the more easily to keep them clean. I think they may as well be laid on clean fine tables, and may in that manner also be kept clean, as I shall presently show.

During the first day after the worms are hatched, the room in which they are, should be kept in the same degree of heat; but afterwards, as the heat and the strength of the insect increases together, the room should be cooled from time to time by letting in a draught of air. In general the windows should be now and then opened to let in the dry air from the north and northwest. Dampness is fatal to the silk worm and should be constantly guarded against.

Cleanliness is also of the greatest importance; when it is wished to clean the table on which the worms are, it is only necessary to place close to it another table, on which are put mulberry leaves; the worms will immediately crawl to them, and leave the other table empty, which may then be cleaned. This is necessary to be done the oftener as they increase in size, as they make more ordure. In the beginning it should not be done until after their first moulting. They generally moult or shed their skin four times. During the moulting, which lasts 24 hours, they lie torpid, and do not feed. They should be left quiet.

Care should be taken that the worms do not lie on each other, as it prevents their feeding. When they do they should be separated. They should

have as much space as possible; the more they are at their ease the better they thrive.

Nothing is more prejudicial to the silk worm than to be fed with damp leaves. A quantity of dry leaves should therefore always be kept in reserve in case of rain. Wet leaves must be dried in the hot sun. The leaves should not be gathered until the sun has absorbed the dew.

The quantity of food to be given to the worms must be calculated according to their ages. In the first days they should not be overfed.

In plucking the leaves to give to the worms, the buds should not be touched, nor the branches of the tree broken. Nothing but leaves should be gathered. The mulberry puts forth three times in each season: if the branches are broken, or the buds plucked off the tree suffers considerably, and does not produce so much. All the leaves should not be plucked off, but some left on the tree.

IV. OF THE RAISING OF THE SILK WORM.

When the silk worms are ready to make their cocoons, which in this country, generally, is on the 31st day after they have been hatched, a kind of artificial hedge not above one foot high must be prepared, by means of some brushwood without any leaves, which is to be fixed along the wall, behind the table on which the worms are. They crawl of themselves on this hedge, which is called *rising*, and there make their cocoons. This brushwood must not be fixed straight up along the wall but should be inclined above and below, in the form of a semicircle towards the table on which it is to rest, because the worms always move in a circular direction; and also in order that, if they should fall they may not fall upon the table or floor, but on some part of the artificial hedge, whence they may crawl up and carry on the work.

It is easy to know when the worms are ready to rise. They crawl on the leaves without eating them; they rear their heads as if in search of something to climb on; their rings draw in; the skin of their necks becomes wrinkled, and their body becomes like soft dough. Their color also changes to a pale yellow. When these signs appear, the table should be cleaned and the hedge prepared to receive them.

From the moment that the worms begin to rise they cease to eat; they must not be touched nor their cocoons, until they are pulled off as will be presently mentioned.

V. PICKING OFF THE COCOONS.

The worms generally form their cocoons in three days after rising; but they are not perfect until the sixth day, when they may be picked off from the hedge. In Europe this is not done till the eighth day, nor should it be done sooner in this country, if during the six days there have been violent thunder storms, by which the labors of the moth are generally interrupted. The cocoons must be taken down gently, and great care taken not to press hard on them; because, if in the least flattened, they fall into the class of imperfect cocoons, and are greatly lessened in value.

In picking the cocoons from the hedge, the floss or tow with which they are covered must be delicately taken off, always taking care not to press too hard on the cocoons. After the cocoons are thus taken down some are preserved for eggs, and others kept for sale.

VI. OF COCOONS FOR EGGS.

In order that the farmer may judge of the quantity of cocoons that it will be proper or advisable for him to put aside and preserve for eggs, it is right that he should be told that fourteen ounces of cocoons will produce one ounce of eggs, and one ounce eggs will produce a quintal [100 pounds] of cocoons.

In selecting the cocoon to be kept for eggs it is recommended to select the white ones in preference and keep the colored ones for sale; attention should be paid to having an equal number of males and females, and they are generally known by the following signs: the male cocoons, that is to say, those which contain the male insects are in general smaller than the *female*; they are somewhat depressed in the middle, as it were with a ring; they are sharp at one end, and sometimes at both, and hard at both ends; the female cocoons on the contrary, are larger than the male, round and full, little or not at all depressed in the middle, and not pointed at either end. They may easily be discerned by a little habit.

It is particularly recommended to take all off

the floss or tow from these cocoons, so that the moth may find no difficulty in coming out.

After the cocoons are taken down from the hedge, those which are intended for eggs should be laid, but not crowded, on tables; that is to say, the males on one table and the females on another, that they may not copulate too soon, and before they have discharged a viscid humor, of a yellow reddish color, which prevents their fecundity. They discharge this humor in one hour after coming out of the cocoon, which is generally ten days after they have been taken down from the hedge; this may be accelerated by heat.

At the expiration of one hour after the moths have come out of their cocoons, the males and females may be put together on tables or on the floor; the tables or floor ought to be previously covered with linen or cloth, on which, after copulation, the females lay their eggs. One female moth or butterfly generally lays 500 eggs; the male and female remain about six hours together, during which time they copulate; after which they separate, and the female is 48 or 50 hours laying eggs; but the greatest quantity during the first 40 hours.

From the moment the moths have come out of their cocoons until the females have laid all their eggs, the room must be kept entirely dark; the light debilitates them and makes them produce but few eggs, and the worms that come from them are weak and puny.

When the female moths have done laying eggs, all the insects must be taken away, and may be given as food to the fowls. The eggs must remain on the cloth where they have been deposited during fifteen or twenty days, until they shall become of an ash or slate color, when they are perfectly ripe, and may be considered as good eggs. Then the cloth or linen must be folded, and kept in a cool and dry place, until it shall be thought proper to take off the eggs which is done by putting the cloth into pure water, and when thoroughly wetted, scraping gently the eggs from the cloth taking care not to injure them. When thus scraped into the water all the good eggs will go to the bottom, and the bad, if any, will swim at the top, as mentioned before, Art. 1.

The eggs being thus washed, must be dried in the open air, and when perfectly dry, the best

mode to preserve them is to put them into hollow reeds, or canes, perfectly dry, and closed at the two extremities with a thin piece of flaxen or cotton lincn well fastened. It is also the best means to transport them from one place to another.

VII. OF COCOONS INTENDED FOR SALE.

In order to prevent the cocoons from being perforated by the moths escaping from them, which greatly lessens their value, it is necessary to kill the moths. This is generally done by baking in an oven or by steam, but the best mode, which is peculiarly well adapted to warm climates, is to lay the cocoons on lincn or cotton sheets, but not too close, or one upon another, and to expose them thus to the heat of the sun in open air, when it is perfectly dry, during four days, from 11 A. M. to 4 P. M. taking great care in handling them not to crush or flatten them, which is of the highest importance. In that time there is no doubt that the moths will be killed. The processes of steaming and baking are not always safe, because they may be overdone and the silk greatly injured. I have seen instances of it in this country. Yet, if the weather should prove obstinately damp or rainy, those processes must be recurred to; but not in dry sunshiny weather, when they can be avoided.

The last thing to be spoken of is the packing of the cocoons to send to market. They should be put in boxes with great care, not pressed too close lest they should be flattened, and close enough that they should not suffer in like manner by striking hard upon each other in consequence of the motion of carriages or stages. The boxes being dry and well conditioned may be transported by steam boats; if transported by sea, they should not remain longer than fifteen days on salt water, lest they should become mouldy. On river water and particularly by steam boats, there is not the same danger. The boxes in every case should be covered with a tarpaulin or good oiled cloth, that they may in no case suffer from dampness or rain.

The price of good cocoons in France is from twentyfive to thirtyfive cents per pound of sixteen ounces—I mean of perfect cocoons. Perforated cocoons, from which the moth has escaped, those which are spotted, and the imperfect ones, called *chiques*, mentioned in the essay No. V. command

no price, and are generally given away by the silk culturists. There are but few of them, because, those who raise silk worms being experienced in the business, produce hardly any but good cocoons. When these are sold, the bad ones are thrown into the bargain.

The price of cocoons in this country cannot yet be settled; but it will be the interest of the silk culturist to sell them in the beginning as cheap as possible, to encourage the silk manufacturers, which alone can procure them regular purchasers, and without which their produce must lie upon their hands.

J. D'HOMERGUE.

MEDICAL AND OTHER VALUABLE PROPERTIES OF SILK.

In the British Annual Register, for 1829, vol. lxxi. it is stated, that "A silk covering of the texture of a common handkerchief, is said to possess the peculiar property of resisting the noxious influence, and neutralizing the effects of malaria (foul air from marshes). If, as is supposed, the poisonous matter is received into the system through the lungs, it may not be difficult to account for the action of this very simple preventive: it is well known that such is the nature of malaria poison, that it is easily decomposed by even feeble chemical agents. Now it is probable that the heated air proceeding from the lungs may form an atmosphere within the veil of silk, of power sufficient to decompose the miasma in its passage to the mouth; although it may be equally true that the texture of the silk covering may act mechanically as a non-conductor, and prove an impediment to the transmission of the deleterious substance."

If a silk veil will preserve against the deleterious effects of those exhalations, which, on the borders of our western lakes, and in many other parts of our country, produce ague and fever, silk would be worth more for that use alone than all the gold and jewels that ever glistened. Besides, if silk coverings for the head are efficacious to preserve against malaria, the presumption is, that they would guard against the foul air of sick chambers, where patients suffer under contagious diseases, and indeed against bad air of every kind and description. The more we examine the nature and

uses of silk, the stronger the inducements appear to engage the industry and ingenuity of the good people of these United States in the culture and manufacture of that precious article.

USES OF THE MULBERRY TREE.

The wood of the mulberry tree is used for many purposes. Its being compact, pliant, and hard, capable of receiving a good polish, causes it to be sought by upholsterers, turners, and carvers. Its strength makes it useful to the joiner, and its power of resisting the action of water almost as well as oak, makes it good timber for building boats. It is also a very good wood for fuel, and is well adapted for making charcoal.

Mayet sur le culture du Murier.

It was observed by Dr Deane, in 1793, that "The only mulberry in any degree proper for the food or successful culture of silk worms is the white mulberry. [The Chinese Mulberry, and some other sorts of mulberry, were not then known in this country.] All attempts to raise them on the common black mulberry will be unsuccessful."

The same writer observed, "If we are not disposed to make use of mulberry trees for the feeding of silk worms, they would pay for the trouble of rearing them by their fruit and timber."

It is much in favor of the culture of the mulberry tree, that its roots strike very deep into the ground, so that the surface not being impoverished as it is by many trees, whose roots are found more in the upper soil, other kinds of cultivation may be prosecuted around it. Neither its shade, nor the dropping of rain from its leaves, is considered prejudicial to plants growing beneath it. *

GRAND SILK MACHINERY.

Mr Lambe, of Derby, Eng. having, in the disguise of a common workman, succeeded in taking accurate drawings of silk-throwing machinery in Piedmont, erected a stupendous mill for that purpose on the river Derwent at Derby, and obtained a patent for the sole and exclusive property in the same during the space of fourteen years. This grand machine was constructed with 26,586 wheels, and 97,746 movements, which worked 73,726 yards of organzine silk thread with every

revolution of the water wheel whereby the machinery was actuated; and as this revolved three times in each minute, the almost inconceivable quantity of 318,504,960 yards of organzine could be produced daily. Only one water wheel was employed to give motion to the whole of this machinery, the contrivance of which speaks highly for that of the constructor, who possessed the means of controlling and stopping any one or more of the movements at pleasure, without obstructing the continued action of the rest. The building wherein this machinery was erected was of great extent, being five stories in height, and occupying one-eighth of a mile in length. So long a time was occupied in the construction of this machinery, and so vast was the outlay which it occasioned, that the original duration of the patent proved insufficient for the adequate remuneration of its unsurprising founder, who, on these grounds, applied to parliament for an extension of the term for which his privilege had been granted. This, however, in consideration of the great national importance of the object, which was opposed to its continued limitation in the hands of any individual, was not granted; but parliament voted the sum of 14,000 pounds to Sir Thomas Lambe, as some consideration for the eminent service rendered by him to the nation, in discovering and bringing to perfection, at great expense, a work so beneficial to the kingdom; the grant being made on the sole condition, that competent persons should be allowed to execute an exact model of the machinery, to be deposited in such a place as his Majesty should appoint, in order to perpetuate the manufacture.

SILK-THROWING MILL.

In a throwing mill (or manufactory in which raw silk is prepared for the weaver) situated in the neighborhood of London, there are 1600 swifts employed, with a proportionate number of spindles. These are all put in motion by a steam engine, on the high pressure principle, of six horse power, having a boiler of capacity equal to the production of steam for an engine of double that force. The surplus steam is employed in warming and drying the factory. In the establishment, which is very carefully and ably conducted, are employed 120 people, mostly young girls, and the

* Dr Lardner.

quantity of silk thrown during the whole year, the works being constantly employed, is about 13,000 pounds' weight. The weekly performance varies somewhat, according to the quality of the material under conversion, and also with the hygrometric state of the atmosphere; for which reason the yearly working is stated, instead of the result of any one week's operations.

Dr Lardner's Cabinet Cyclopaedia.

PROFITS OF THE MULBERRY.

Though it would seem probable that almost any farmer who has 100 acres or more, if he understood the subject, and was duly informed as to the profits of cultivating silk, would appropriate at least three acres to it, I will confine my calculation on the profits of a single acre, which the farmer can always extend or contract to suit his own views.

A number of calculations have been given to the public, by different persons, all founded on experience, and probably all true. But as they have been made on different soils, and no doubt with different management and different degrees of skill and care, it is naturally to be expected they all differ. Probably the mean between them may be relied on as a fair average result.

Andrew Palmatier, Esq. of New York, has given a statement from two acres, which divided will give the following for one acre:

One acre of ground, fenced by mulberry hedges and set out with trees,	\$250
Interest and additional expense during five years,	187,50

The acre will then produce :	\$437,50
From 5 to 10 years,	10 per cent.
“ 10 to 15 “	47 “
“ 15 to 20 “	112 “

which will average nearly 45 per cent, for the first twenty years, and continue at 112 per cent afterwards.

Mr Fitch, who is cited as authority by the secretary of the treasury, calculates 40 pounds of silk to an acre, and Mr Storrs 60 pounds.

According to the calculation of Mr Palmatier, an acre will pay on an average of 20 years \$205,62, and \$490 a year, afterwards.

Mr Fitch's statement, allowing the silk to be worth 4 dollars per pound, would yield a gross amount of \$160, and that of Mr Storrs's \$240. Mr Storrs has had much experience, and probably his estimate may be relied on as the average; though in a better soil, some one may have gone far beyond it.—*Silkworm.*

SILK WORMS.—The Silk Culturist inquires how to prevent the black ant from destroying the silk worm. A correspondent says, “Let the frames on which the worms are fed be placed some distance from the walls of the room, and nail strips of new tin (two or three inches wide) about the bottom of the standard posts supporting the feeding frames, and the ants cannot climb over the tin. A similar rim of tin placed about the Chinese plant when set out will prevent the cut worm from reaching the plant.”—*Northampton Cour.*

[From the Silk Culturist.]

Culture and Transplanting of the Mulberry. No. 1.

MR EDITOR:—At a time when the feelings of the community are so much interested in the culture of silk, it seems important that all who have investigated the subject, should communicate freely the results of their experience and observation, that those who are desirous of aiding in the advancement of this valuable branch of industry, should possess the knowledge which is necessary to embark in it, without too great risk.

Although the raising silk has been carried on in the old world for centuries, and in this country for several years, it is still, to most of us, a new business. It is true that we have the means of obtaining a great deal of information from European authors, but much of it is useless or worse than useless in its application to this country. It will not do to follow them as guides. We must collect facts from this country, and opinions founded on experience and observation here, or we incur the hazard of discouragement and failure.

The importance of having such means of spreading information as is afforded by your paper, (*The Silk Culturist*,) cannot be too highly appreciated by the public; and I am happy to see it so extensively circulated. I propose occasionally to give you the result of my investigations, as often as I can communicate any thing of practical information, and with this view I propose to give you for this and some succeeding numbers a few hints on the transplanting and culture of the mulberry tree.

The first thing to be decided upon is the kind of mulberry to be used, and as all are generally given up, for various causes, except the Chinese Mulberry, (*morus multicaulis*,) and the Italian or common white Mulberry, (*morus alba*,) it remains to decide between these two kinds.

There appears to be no difference of opinion with regard to the superior utility in every respect of the Chinese over the Italian, when the climate is equally adapted to both; but there is so decided a difference of opinion among those who have tried the culture of the Chinese tree in this State, that the public must for the present remain in

some doubt whether the certainty of its living through our winters is sufficiently established to warrant exclusive dependence upon it. One of my friends transplanted several thousand trees, and in three winters lost them all, although they were placed on different kinds of soil and in different exposures.

Another friend planted 800 and lost all but 130. That 130 I took and planted in different places, 75 in one spot, and the remaining 55 in another. The former all died, of the latter about one in five lived, but were very much injured. Another friend bought one or two about four years since, and has since successfully propagated them from cuttings, layings, inoculating and engraftings, and has now on hand several thousands which lived through the winter as well as the white mulberry tree beside which they grew. It is worthy of remark, however, that the greatest propagation, those which I last named, were engrafted in the white mulberry stock. How much this affected the case it is impossible to determine without more experiment. As the facts are now, it would seem to be more prudent to depend upon the white mulberry tree, which we do know is hardy, and seems to withstand the cold of our severest winters, and affords food nearly or quite as good as the Chinese mulberry, and at but little more expense. Besides, it is believed that the Chinese Mulberry is more hardy when growing on the white mulberry stock, so that it will certainly be better, and probably cheaper, to plant the white mulberry, if the object is to have eventually a plantation of the Chinese tree. If it is decided to plant white mulberry trees, the next thing is to decide whether they shall be planted close in rows, leaving room enough between the rows for the trees to spread laterally, and for picking and carrying away the leaves, or whether they shall be planted in the orchard form. The former is the best for many reasons. By that mode, from one to three thousand trees may be planted on the acre, which will furnish a large amount of foliage in a short time, and in the latter it would be many years before the produce would begin to pay for the investment. In the former mode the leaves would be picked from the ground, and the time which would be required in the orchard would be saved, and the danger of falls, &c. would be avoided.

Yours, respectfully, S. W. BROWN.

RELATIVE EXPENSES OF ANIMAL LABOR.
AS PERFORMED BY HORSES OR OXEN.

Animal labor is one of the most important items in the expenses of the farm, whether performed by horses or oxen; but as it will really be admitted, there is a difference in the amount, as performed by one or the other, and that difference I conceive to be altogether in favor of the latter.

The horse is said to be one of the most expensive animals kept on a farm. In order that he may be kept in condition for work, it is necessary that he should have a great deal of the best food together, a warm stable, and hourly and almost constant attendance, and whilst the ox requires as little and as plain food as other animals of its size, and less attendance. The horse is more liable to disease and casualty than any other animal, the ox less,—it is a very common thing for a farmer to lose a horse, but a very rare one to lose an ox. Likewise the horse, when arrived at maturity, or an age which fits him for a farmer's team, begins soon to depreciate in value, and is at length worth little or nothing more than his hide—while the ox at any age, if fat, is worth to the butcher more than he even costs in his prime.

The only objection urged against an ox is their slowness. But in most of the ordinary business of the farm, this can scarcely be an objection. In drawing into the barn hay and grain in the time of harvest; drawing manure from the yard on the farm; drawing wood to the door; ploughing and clearing ditches for draining land; drawing rails for the repair of fences, &c. &c. oxen are conceded by all, to be the safest and best of teams. And even before the plough the difference of speed is not sufficient to make good the difference in the expense of keeping and attendance. A man with a pair of oxen may put in twenty or twenty-five acres of wheat in one season, while with a pair of horses he can but little exceed thirty acres.

I shall here add a comparative view of the expense of keeping a pair of horses and a pair of oxen for eight years. I shall suppose them both five years old, the first pair of oxen to be fattened and sold when nine years old, and their place supplied by another pair five years old, and then to be kept four years, and then fattened and sold together with the horses, which will then be thirteen years old.

A yoke of oxen 5 years old will cost	\$80,00
Interest 4 years	22,40
Keep 4 years	160,00
	<hr/>
	262,40
• Deduct oxen sold (supposed fat)	100,00
	<hr/>
	162,40
Another yoke 5 years old cost	80,00
Interest 4 years	22,40
Keep 4 years	160,00
	<hr/>
	424,80
Deduct oxen sold	100,00
	<hr/>
	\$324,00

A pair of horses 5 years old cost	160,00
Interest 8 years	80,60
Harness for 8 years	50,00
Shoeing for 8 years	50,00
Keep and attendance for 8 years	575,20
	<hr/>
	924,80
Deduct horses sold	100,00
	<hr/>
Total cost of 8 years' work by horses	824,00
Total cost of 8 years' work by oxen	324,80
	<hr/>
Difference in favor of oxen	\$500,00

If the above estimation be correct, (and if it be not, I believe that a near approximation to the truth will be found to increase the balance in favor of oxen) it will be seen that two pair of oxen may be kept with less expense than one pair of horses. —*Ohio Farmer.*

A KITCHEN GARDEN.

The importance of a little spot to raise vegetables for family comfort, convenience and economy is not known to every one. I have practised for many years raising my own potatoes, beets, carrots, parsnips, cabbages, &c.; also, sweet corn, and beans, peas, squashes, and other garden vegetables for my family table. Thus I obtain a very wholesome food, and save much expense of purchasing meat;—I am not plagued with a big butcher's bill,—nor do I require so much bread, as when I have none or few of these valuable fruits. The labor, too, which I perform with my own hands has its benefits; it is both healthful to the body, and a saving of expense. I often find myself with a sweaty brow and a tired limb; but what of this? It surely brings health, and no one ought to be ashamed to handle the hoe or the mattock: it is man's natural employment. We were made to till the earth, and it is a good preventive against a thousand ills, moral as well as physical. Besides, what mechanic or farmer can bear to set down, day after day, to a dish of nothing but pork and potatoes, when, by half an hour's work each day in his garden, he might be well provided with various dishes of green sauce? If he has a family of young children, it is still more important that he should attend to this matter.

Now, ye men of industry and economy—ye lovers of life and of money—I enjoin it upon you to have a kitchen garden—a little quarter of an acre, where you can employ yourselves for a while both morning and evening, in bringing to maturity those good things, so useful and so healthful in your families. The earth is the mother of us all, and on her we all depend for our nourishment. We therefore must not forsake her. If there is no labor of the husbandman, then our bread will fail us. The soil must be cultivated, in order to its

producing plenteousness for the food of man and beast. The professional man, and the mechanic, and the man of trade, should not be so exclusive in his occupation, as to refuse an occasional and personal attention to these things. To a man who takes pleasure in beholding the progress of vegetable nature, it will be no task to attend to the trimming of his garden plants, thus giving vigor to his body, and a profitable employment to a thoughtful mind. Is it a mean thing to be seen with a hoe or a spade upon your shoulder? Fudge! 'tis the prejudice of ignorance. Awake, then! "In the morning sow thy seed, and in the evening withhold not thine hand."—*Bridgewater Patriot.*

SOWING MULBERRY SEED.—A writer in the *Silk Culturist*, who is an experienced cultivator of the mulberry, says that any time in the month of August is a suitable season for sowing the mulberry seed; that the plants may be protected through the winter by a covering of straw and horse manure, and in the spring they will start early and grow vigorously, and attain by the fall to nearly as great a height as though they had been sown the preceding spring. But little straw should be used in covering, otherwise rats and mice may be induced to burrow in it, and destroy the plant. There is one advantage in this late sowing—new seed may be obtained and sown, which is more sure to vegetate.

GARDEN THIEVES.—We are requested to say that an association has been formed, whose determined object it is to pursue and punish to the law's extent those plunderers, young and old, who are in the habit of committing depredations upon various enclosures and garden spots—especially those situated a few miles from town. A watch is set for these skulking pilferers, from whose vigilance it will be difficult to escape.

SIMPLE REMEDIES.—Cotton wool wet with sweet oil and paregoric relieves the ear ache very soon.

Honey and milk is very good for worms; so is strong salt water.

A poultice of wheat bran or rye bran, very soon takes down the inflammation occasioned by a sprain.

Low blackberry leaves made into tea is extremely beneficial for a sore mouth occasioned by taking calomel, or from any cause.

NEW WHEAT.—On Thursday, the 6th inst., new wheat was selling in Rochester, at a *dollar a bushel*. The Rochester papers say the new wheat is of excellent quality, and that the crop comes in well, as to quantity.

[From the New England Farmer.]

MERINO SHEEP.

MR FESSENDEN—Having for many years been a breeder of fine wool sheep, I beg leave to offer you the result of my experience, and if it should not correspond with the observation of other breeders, I can assure them, my flock has never suffered, from want of care and expense in their first purchase, for unwearied attention to their management or for the good condition in which they have uniformly been kept. The sheep were provided with good pasture in summer and extensive, airy sheds in winter, and fed on English hay, with a few potatoes towards spring. The merino sheep imported into this country, from 1803 to 1811, were chiefly of the Spanish Escorial, the Paular, Gaudaloupe, Infantado, Montano and Nigretti.

The Escorial were beautiful fine woolled sheep, free from grease, *not* carrying a very heavy fleece, or a very strong constitution. The Nigretti were the largest sheep of any imported. The other three flocks were of good size, short legs, round chest and sheared very large and heavy fleeces. My flock was from the Paular and Gaudaloupe, and particularly distinguished for the quantity and quality of their wool, and differs from the others in a looseness of skin on the neck, with a more evident degree of throatiness. Their lambs were generally produced with a coarse, hairy appearance, which was succeeded by a coat of unusual closeness and of excellent quality. Among the great numbers of sheep imported into this country, individuals belonging to the same flocks differ greatly in the size of the carcass, as well as the weight and fineness of the fleece. The great object, at that time in forming my flock, was quantity and quality, for, with the first requisite I always found the hardiest, strongest constitutions. I endeavored to obtain a fleece that would produce the greatest profit and so well had I succeeded that to the time when Saxony sheep were introduced, the entire flock averaged four and a quarter to four and a half pounds of washed wool, and sold at seventy to seventy-five cents per pound. There were no wethers in the flock. Ewes would shear from three and three quarters to four and a quarter pounds. Bucks from six to nine pounds. Yearlings from four to four and a half.

On the importation of Saxony sheep I bought largely, confident I should soon realise in fineness, more than I lost in the diminished quantity of the merino fleeces. But I was sadly disappointed, for I lost not only in the *value* of the fleece, but still more by feebleness of constitution. My merino lambs used to drop in March, and their close hairy coats afforded a protection at once. But I found March was too cold for my delicate, half

naked little Saxons. I was obliged to have them drop in May. This was a bad arrangement, for when the lambs were weaned, it was so late in the season, that the mothers would not get fat, as formerly. The merino lambs were so hardy that the loss of *one*, could almost always be traced to some accident or neglect, but the Saxons would die in spite of all my care and attention, full fifteen and twenty per cent. The average weight of my fleeces became very much reduced and I never sold my clip for over eighty cents per pound. Two years ago I became satisfied of my mistake and loss, occasioned by the Saxons, and sold out the whole, reserving to myself such of my old merinos as I could select, that had escaped the general slaughter, and by repurchasing some, I had previously sold, I have now a small flock of merinos with which I shall be satisfied, without further experiments. The ewes, with two exceptions, have lambs by their sides and their fleeces in June averaged four pounds one ounce. Some of the oldest shearing less, and others more, and one reaching five pounds fourteen ounces. One of the bucks sheared eight pounds and one quarter. This wool washed on the sheep, sold at sixty-seven cents per pound, cash.

It is a peculiarity of the merinos, of which I am speaking, that they abound with a greasy secretion, from the skin,—(not stiff hard gum) but an oily substance, which spreads itself through the whole fleece, so that the surface assumes a blackish or dark brown appearance and retaining the dust and soil, forms with it a coat that contributes largely to defend the animals from the ill effects of cold and wet. It improves rather than injures the quality of the fleece beneath, and it is easily removed by ordinary brook washing.

The wool is of very uniform fineness, close and compact and extends quite down to the hoofs and over the face.

In this part of the country there is a general disposition to get rid of the light *fleeced* and light *constituted* sheep and replace them by the Spanish merinos, as we formerly had them. Before the return of another season I intend to import from Spain, for the use of my own little flock, (for the benefit of a cross of blood) two merino bucks, that shall possess as far as possible, the great requisites of *quantity* and *quality*. T.

Hartford, Ct. August, 1835.

KENRICK'S ORCHARDIST.

[We copy the following notice of this truly valuable work from the New York Farmer.]

This second edition of Mr Kenrick's work is very much enlarged and improved. The mechanical part, in character with the Boston press, is very beautiful. The title of the work denotes its comprehensiveness and probable usefulness:

and an examination fully sustains its claim to public patronage as a very convenient and valuable publication—one that every farmer and gardener will find a very important and almost indispensable acquisition to the library. We know of no American work on this subject that will compare with it in the variety and value of the information, and in cheapness.

Mr K. has taken the responsibility of a large edition, and we hope he will be remunerated. The book can be had in this city at the seed store in Barclay street, and probably at the others in this city.

On a future occasion we may probably give a further notice. S. F.

AGRICULTURAL WAREHOUSE, BOSTON.

“Agriculture is the art of arts, without which man must be a savage, and the world a wilderness;” therefore anything which tends to advance a more perfect knowledge of this art, or to develop and distribute facilities which simplify and render it more productive, is of general utility.

The Agricultural Warehouse, Boston, is an establishment extending from North Market street to Ann street, containing four rooms, 90 feet by 40, and all filled with agricultural implements, seeds, and various patented articles; it is a complete museum, in which is deposited every thing that is new and useful to the cultivator, and which every farmer ought to make it a point of visiting whenever he happens to be in Boston.

This establishment has had a great influence upon the state of agriculture in New England, in helping to eradicate what was considered the almost immovable prejudice of farmers in favor of old customs, &c. Time was when you might as well have undertaken to overturn Mount Washington, as to convince the farmer that this invention or that improvement was of real utility; or in fact that any improvement was necessary or could be made upon existing methods: cultivators considering the very ultima thule of good farming to be a strict adherence to what their fathers practised and performed; beyond this it was impossible to go. But instead of the uncouth and imperfect tools they used, their place is now supplied by beautifully simple and easily operating labor-saving implements, machines, &c. Among the great variety of articles for sale at this establishment, many are found far superior in form and construction, and better adapted to the purposes for which they are intended, than any which have been in use in this country. Here is displayed in every variety of form specimens of the inventive genius of our countrymen; and here is a grand bank for the farmers, from which they may draw deposits, without a check, of infinite value to them.

In this country, agriculture is still imperfect, though much advanced, and we have yet to learn some new practices, adopt some new improvements, accustom ourselves to read and to observe, before we bring it to that state of perfection, which it is capable of receiving. It is for the Farmer's own interest to sustain establishments which throw in their way every facility.

It has been said that, “he who does most advance the great interests of agriculture, will justly, hereafter be considered as his country's greatest benefactor.” Surely, then, the proprietors of this excellent establishment, so happily adapted for the Farmer's convenience, and which cost large expenditures, and years of labor, to establish, on a firm basis, will have no small claim to this distinction.—*Boston Courier.*

Remarks on the Horn Distemper.

Animals of the forest, guided by the principles of instinct, regulated by the dictates of nature, and uncontrolled by man in their food, air, rest, and exercise, are seldom affected by disease, while domestic animals of all countries and climates, more directly under the control and dominion of man, are subject to a variety. There are but few instances on record of prevailing diseases among the different tribes of wild animals, while every appropriate periodical informs us of diseases and their remedies of the whole class of those more immediately under the direction and government of man. Having lately had a fine young cow of the short horn Durham breed, afflicted with the disease called Horn Distemper, and she having thoroughly recovered, I thought it would not be improper to offer for publication in your valuable journal a few remarks on the disease, and my method of treatment. It is evident this distemper affects the internal substance of the horn, usually called the pith, insensibly wastes it, and eventually, if suffered to make its progress unmolested, leaves the horn entirely hollow. The pith is a porous, spongy bone, whose cells are covered with an unctuous matter and filled with numerous small blood vessels, is overspread with a thin membrane, appears firmly united to the head, and in a healthy animal completely fills the horn, which only serves as a sheath. In horn distemper this bone is partly, at others wholly wasted, commencing at the extremity of the pith. The usual symptoms are a general dulness of the countenance, a tardiness in moving, a formation about the eyes of a yellow viscous matter, failure of appetite, a desire to lie down, a giddiness and frequent tossing of the head, often a stiffness of the limbs is observable, and in cows the milk fails. Let the other symptoms be what they may, there is always a sudden wasting of the flesh. The horn

always loses its natural heat, and a degree of coldness is manifest to the hand by grasping it firmly. When in one horn, as is often the case, there will be a very sensible difference in the feeling. If upon examination the horn is cold, we need not doubt the presence of the malady, yet without an acquaintance with some of the preceding signs, we might not be induced to examine the horn, or suspect the evil. As soon as the discovery is made, a hole with a ten-penny nail gimlet should be immediately bored underside the horn, three or four inches from the head. If the gimlet passes through the inside without resistance, it may be bored as low as is judged the hollowness extends; this, generally if done in season, is all that is necessary. These holes should, however, be kept open, that a free discharge may be encouraged, and a communication be kept up with the air. Bubbles are continually forming at the orifice, through which a thin fluid oozes after the horn is bored. This seems to indicate an internal fermentation. Putrid matter may be formed on the periosteum, and entering into the interstices of the bone, may dissolve the oily substance, and form a fluid so putrid and corrosive as to dissolve even the bone itself. From the sensible relief that an opening into the horn gives the beast, it is more than probable that the distress manifested arises from compression, occasioned by the expansion of the putrid and confined air within, rather than from an effect produced on the blood and juices. In aggravated cases the inside of the horn should be thoroughly syringed two or three times a day with salt and water, soapsuds, pepper and vinegar, or any simple cleansing material, (never apply spirits of turpentine, as the manner of some is.) If there appears to be much inflammation about the head, a moderate bleeding in the neck would be beneficial. But when the distemper has communicated its effects to the brain so as to produce a high degree of inflammation, it is much to be doubted whether any mode of treatment would afford effectual relief.

Milch cows are more liable to attack than other descriptions of horn cattle. It is not common among oxen; I never knew a bull to have it; steers and heifers are thought to be exempt from it under three years of age. It cannot be considered as contagious. Neat cattle are subject to a disorder commonly called Tail Sickness, which is a wasting of the bony substance of the tail, and if not cut off above where the defect reaches, often proves fatal. It frequently accompanies the horn distemper.—*N. Y. Farmer.*

RYE.

Soils of a sandy or gravelly nature are proper for rye. Lands which are too rich or too poor for wheat are well appropriated to this crop, which will endure either ex-

treme of barrenness or fertility without being starved and shrivelled in the one case or mildewed and blasted in the other better than wheat.

In the Memoirs of the Board of Agriculture, vol. I. page 82, it is said "Rye should be sowed the last week in August, or the first week in September, at the rate of about thirty six quarts per acre; some say forty eight quarts. But if not sowed at that time, it ought to be delayed until late in November, so that it may not come up until spring. A. Worthington had a good crop, which he sowed in a January snow storm. Rye raised on upland makes much better flour than that which is raised on low or damp lands."

The quantity of seed to be sown to the acre should vary according to the soil, the time of sowing, and the purpose for which it is intended. Mr Adams Knight of Newbury, Mass. received a premium of twenty dollars from the Mass. Agr. Soc. for a crop of rye. In applying for this he states that the acre, which produced the premium crop, amounting to the great quantity of forty five bushels and five eighths of a bushel, was sowed in the month of August with three pecks of seed only. He does not tell us at what time in August the seed was sown, but that "there is standing on said acre of land seventy five apple-trees, from two to six inches through at the root."

In the first volume of communications to the British Board of Agriculture, page 341, in treating of the culture of rye in Russia, it is observed that the produce from boggy lands drained and sowed with rye is upwards of forty bushels to one sowed; and they generally use a much smaller quantity of seed in sowing such lands. A proof that rye will bear very plentifully manuring may be adduced from a case reported by Mr L' Hommidieu of New York, who observed, in substance, that a neighbor of his manured twenty square rods of poor, gravelly, dry soil, with four thousand menhaden fish, and sowed it with rye, at the rate of about one bushel to the acre. In the spring it was twice successively eaten off, close to the ground, by sheep breaking in, after it had acquired a height of nine inches the first time, and six inches the later. These croppings only served to make it grow thicker and stronger than before; and when harvested it produced sixteen bushels, or at the rate of one hundred and twenty-eight bushels to the acre. This account is given in *Transactions of the New York Agricultural Society*, part III. p. 35; and though it may appear incredible, Mr L' Hommidieu declared that it was attested by many witnesses of good standing and reputed for veracity.—*N. E. Farmer.*

LARGEST FLEECE.—*Little cry and great wool.*—We are informed by Luther E. Stevens, of this place, that he recently took 1130 lbs. of wool from 301 sheep, mostly Merino. This is allowed to be remarkable by wool growers. A gentleman in New York this spring, stated in one of the papers that he had taken a fleece weighing 7 lbs. and 3 quarters from one sheep. Another farmer in Vermont, mentioned through a paper that he had taken a fleece weighing 9 lbs. 10 oz. — whether washed and tagged he does not say — and calls upon his brother farmers to beat it, if they can. Mr Stevens took a fleece last week from a full blood Merino buck, three years old, which, when washed and tagged, ready for the market, weighed 9 lbs. and 12 oz.! This is the largest ever known in this country, and he challenges any farmer anywhere to produce a larger one.—*Claremont Eagle.*

[From the Silk Culturist.]

Suffield, June 15th, 1835.

MR EDITOR:—Having been often requested, by several gentlemen engaged in the silk business, to furnish some information for your valuable paper, on the best method of increasing the *Morus Multicaulis*, I send the following communication, and if you think it worthy of a place in the "Culturist," you are at liberty to publish it.

I think that to commence by inoculating is calculated to multiply the *Morus Multicaulis* the most rapidly, as it affords facilities for increasing them many other ways afterwards. Inoculated trees are more abundant in sprouts than grafted ones which will make good layers, and besides furnish abundant cuttings for another year. They are also more forward. I have three thousand which were inoculated last August, the most of which have already grown more than a foot, whilst those grafted the present season are just putting out.

Trees intended to be inoculated the present year, should be trimmed immediately and kept clean from sprouts from the ground a foot upwards, and should stand at such distance from each other as to make it convenient to work around them. Success depends much on the condition of the trees.

Select for the buds the small size of ripe twigs of the present year's growth, and cut off the leaves near the buds; select a smooth place in the stock and make a perpendicular slit downwards in the bark, about half an inch, cross this by another slit at the top, taking care not to cut the wood, then take off the bud, (this should be done with expedition, as the influence of the sun and air injure it if exposed,) this is done by entering the knife half an inch above the bud, taking it out with a slight scollop to a quarter of an inch below, turn the bud over and pick out the wood, leaving in the roots, then with the knife raise the corners of the bark and enter the bud, then place the thumb nail on the leaf stock, and push it down to the bottom of the slit, then with a drawing stroke of the knife cut off the top of the inoculation exactly corresponding with the cross cut, and bind down the bark with woollen yarn, taking particular care in the whole operation not to mar the inside of the bark or the wood of the stock.

A knife much used in New Jersey for budding peach trees, which is perfectly simple, I think best adapted to this purpose; the blade is made by a common blacksmith, one inch and a quarter long and three eighths wide, with a shank to drive into the handle, which is made of wood, the point of the blade is rounded back, having the edge convex.

In addition to the above described knife, I placed in the opposite end of the handle of mine a small piece of ivory, into which I filed a notch of suit-

ble size to stride the bud, with this I press down the bud, after it is entered, which is preferable to using the thumb nail.

Inoculations seldom adhere to the stock, only around the edges, therefore the smaller the piece of bark the better, provided the organs of the bud are preserved, and also for the benefit of the trees, as the smaller the wound the quicker it will heal, and besides, if the piece of bark be large, it leaves a hollow place under the bud which often causes it to wither.

I have recommended tying with woollen yarn, because it is more elastic and convenient than loose matting. These strings may remain fifteen or twenty days, regard however being had to the rapidity with which the trees grow.

I have further noticed that of those buds inserted without taking out the wood a much larger proportion die than those having the wood removed. I have not therefore recommended it, although it is more expeditious.

The best time for inoculating, is from the middle of July until the 1st of September, but the original stock should not be taken off until the following Spring.

THOMAS J. BESTOR.

[From Kenrick's New American Orchardist.]

NUMEROUS SUCCESSIVE CROPS OF COCOONS.

From the present encouraging appearances, we are induced to believe, that instead of one single and solitary crop of silk in a year, we may yet be enabled, in our climate, and with our prolonged summers, to raise not merely two crops of silk a year, with a void interval of time between them, but numerous crops of different ages at the same time and in rapid succession for a season. With the complete establishment of such a system, a new era with us will commence. There are mulberries which will renew their foliage suddenly, and for numerous successive times in a season. Where a regular succession of crops can thus be obtained, with a diminished proportion of labor, of land, of cultivation, of habitations and of furniture, for the successive generations of insects, how greatly augmented must be the profit.

Some, I am aware, might object, on the supposition that the plan has been before tried an hundred times in Italy, in France, and other countries. Not a doubt exists but it has been tried. But we have no evidence whatever that in a suitable climate, it has ever been tried fairly and aright, and failed. It seems important, that in this case, only the eggs of the former year should be used, as these by age, are found to hatch more promptly and simultaneously, and all these may be saved from the cocoons of the first crop produced, which would prevent the possibility of a degeneracy. These are to be preserved dry at a suitable temperature, and to be transferred to an ice house

if necessary, till the season they are wanted. Dr Millington, however, is persuaded that it might be advantageous to have different races of different ages.

In Tuscany, so fine is their climate, that two crops of silk are annually produced. The same has been effected by Mrs Parmentier, at Brooklyn, on Long Island. The first crop being fed from the leaves of the *Morus multicaulis*, *Morus alba*, and other mulberries promiscuously, were of different colors, some white, and some of an orange color. But a second crop of worms from the same cocoons, being fed exclusively on the leaves of the *Morus Multicaulis*, finished their labors in the short space of twenty-six days from the commencement, which was about the 30th of July. This last circumstance might be, in part, owing to the warmth of the season. The cocoons thus produced were not only of larger size than those of the first crop, but what is still more important, they were beautiful and shining, and of the *whiteness of snow*.

At the Fair of the American Institute of New York, in 1833, cocoons were produced of two successive crops of silk. The first crop were hatched 11th of May. The second crop the 8th of July, and a third crop might have been produced. All being fed on the *Morus multicaulis*, they were of a snowy whiteness. In the same year Mr E. Stanley, of Ogden, N. Y., produced two successive crops: the second were hatched by accident, and the cocoons were fine. In Brattleboro', Vt., in the same year, two successive crops were produced from the common white mulberry. And in 1835, as Dr Holmes has recorded, *two crops* of cocoons, both of them large and perfect, were produced in Winthrop, Maine. See his account in the *Maine Farmer*, vol. iii. Feb. 20, 1835, published at Winthrop.

In all these cases, the second crop of silk worms was produced from the eggs from the cocoons of the first crop.

Dr Millington, however states that this practice is wrong. In his valuable communication in the *American Farmer*, for January, 1829, he has stated that the eggs of the same year hatch but partially, or do not hatch so regular as those of the former year. He notes the date and the day the eggs are produced, on the papers on which they are deposited; and those eggs of a similar age are brought forward to hatch at the same time, and then they usually are all ready to spin together. These are carefully rolled up and preserved in dry boxes, and kept in a dry cool cellar, and in June or July of the following years and when the heat of the climate or season requires it, they are transferred to a dry ice house.

Among the great advantages of having silk worms of different ages in the same apartment,

Dr Millington states, "that the same room and shelves will hold abundantly more worms at the same time, without being crowded; and a room and shelves which will but barely accommodate one hundred thousand full grown worms, will better accommodate two hundred and fifty thousand consisting of four or five different ages, provided each age or parcel are about equal in number, and are hatched at about seven or eight days apart. Another advantage is, the same number of hands, with the same quantity of labor, will make more silk and do it with less trouble and perplexity, than when the whole crop of worms are of the same age, and all spin at the same time. When silk worms are young, they are extremely small, and require but little room, little food, and little attention. All the food they consume, up to the time they are sixteen days old, would not make more than one meal for them when full grown; consequently when the whole crop of worms are of the same age, there is at first but little to do; but for a few of the last days they will eat voraciously, and must all be removed and cleaned frequently, and all set to spinning at the same time. So much to do at the same time creates a hurry and perplexity which must eventuate in a loss for want of time to do all that is required.

*** When the worms are of different ages, the labor required is more equalized. A part of them will constantly be of the age to require considerable attention. But this parcel will be so small, that the hands will have spare time to attend to the younger parcels. I have certain shelves allotted to each parcel during a certain age; and *other shelves exclusively for them to spin on*. I begin with the fresh hatched worms, placed on the shelves allotted to worms of that age. After their first moulting I pass them to the shelf allotted to the next age, and again supply the first shelf with fresh hatched worms. In this manner I continue, through the whole season, to bring young worms on the first shelves, and pass them on until they reach the spinning shelves, from which the cocoons are removed, to make room for the next succeeding parcel."

"Last year I had silk worms constantly in feeding from the 20th of April until after the 20th of October."

We are assured on first rate authority, on that of Gideon B. Smith, Esq., of Baltimore, that Dr Millington is an eminently practical, scientific agriculturist, and has made silk one of the principal objects of his attention during several years. Mr Smith, from his own experience, "bears testimony to all Dr Millington's remarks. And considers his as the very best article which had yet appeared." This was in January, 1829. Dr Millington resides at St Charles, in Missouri, about latitude thirtyeight degrees.

I am perfectly aware, that the excellent Dr Pascalis, at the time he published his work on silk, at New York, in 1829, endeavored to explode the idea of attempting to raise numerous crops, or even two successive crops of silk in a season. He states some plausible reasons for his objections, particularly the record of the failure of an attempt near Lyons, about 1820—and also the failure of the attempts at the Isle of Bourbon, situated beneath a fiery sun, and within the burning zone. In the next year, and in No. 2 of his valuable work, "The Silk Culturist," for January, 1830, Dr Pascalis has recorded the successful introduction of the silk culture to the north of France, a thing which had been deemed at least, equally as problematical thirty years before. Also that Dr Deslongchamps had even succeeded in raising a second crop of cocoons from the eggs of the first. Dr Deslongchamps was one of a society of *savans* at Paris who had performed many experiments to prove that this branch of industry can be successfully carried on through all the northern departments of France. He also had ascertained by experiments at Paris, that the cocoons which were produced by silk worms fed exclusively on the *Morus Multicaulis*, were even rather heavier than other cocoons. The more complete and effectual conversion of Dr Pascalis to the system, does not appear so fully until afterwards, when speaking of the *M. Multicaulis* which he had received from France, he says, "after the discovery of this plant, a doubt no longer exists, that two crops of silk may be produced in a single season."

TO HOUSEWIVES.—In this day of improvements, few have been suggested of more importance, especially to females, than the new mode of washing clothes, which has recently been introduced into this town [Newburyport] through the agency of two benevolent individuals, now residing at a distance from us. It has been tried by quite a number of families with complete success, and those who have tried it are desirous of communicating it extensively, that others may reap the same benefit which has accrued to them. It is to be used only for white clothes. It does not answer the purpose in case of calicoes and woollens.

1. Mixture.—Five gallons soft water, add half a gallon of lime water, a pint and a half of soft soap, or a pound of hard soap, and two ounces of carbonate of soda.

2. Method of Washing.—Soak the clothes over night if very dirty, at any rate wet them thoroughly before putting them into the mixture. When the above mixture is at *boiling heat*, put in the clothes that have been soaked or wet, merely rubbing such parts with a little soap that are unusually soiled. Boil them *one hour*. They are then to be taken out and drained, and thoroughly rinsed

in warm water, then in the indigo water as usual, and they are fit for drying. The lime water may be prepared and kept on hand—the soda, sub carbonate, (be sure to get the right kind) may be procured cheap, by purchasing it in a large quantity. Let all who feel that washing-day is a day of hard work and weariness, cease to complain, until they are willing to try this safe, easy and expeditious mode of lightening their burdens.—*Essex North Register*.

COMMUNICATION FROM THE HON. A. SPENCER.

MR BLYDENBURGH—I cannot repress the expression of the satisfaction I derived from the perusal of the first number of "The Silkworm," conducted by you. Others, many others, may prefer reading political and partisan newspapers, but to me there is more pleasure in reading and contemplating on the bounties of a munificent Providence in providing so lavishly for the comforts and enjoyments of man. This remark is illustrated and enforced by contemplating the silkworm, in its birth, its various changes, its nurture, and finally its fabrication of the cocoon, which yields the finest known materials for fabrics, almost indispensable to the embellishment and comfort of the human race.

I am not one of those who believe that we are the most virtuous and best informed people on the face of the earth; nevertheless I do believe that we have among us many, very many, ingenious and inventive men, capable, with proper inducements, of carrying to high perfection, and in the simplest manner, the discoveries of past times. We have also an intelligent population, ready and zealous on any new sources of industry which shall promise an adequate reward for their toil and labor. I think it then only necessary to satisfy our agriculturists that the culture of silk will be attended with a handsome profit, to insure its general adoption. I feel an entire confidence that you will be able to convince the most sceptical that the culture of silk will afford to our farmers a richer reward than any other crop they can raise, and that ten acres devoted to the mulberry, and the rearing of the silk-worm, in a farm of one hundred acres, will at the end of five years produce a greater profit than the remaining ninety, however skilfully cultivated. This profit will keep increasing from year to year, in proportion to the growth of the trees; and when we add to this the fact, that the tending of the worms will require only the labor of women, children and feeble persons, that it interferes not at all with the labor of those who cultivate the ninety acres, and that therefore it is all clear gain, who can doubt of the result?

The general substitution of cotton for linen

fabrics, which were formerly made by our females, and the introduction of many labor-saving machines, has relieved our women from much manual labor, and they have leisure time, which they would willingly devote to any occupation adapted to their capacities. The rearing of the worm, and reeling the silk from the cocoons, is the very employment adapted to them. Can it be doubted, then, that the matrons and young women of the country will cheerfully and zealously enter upon an employment so honorable, so profitable, and I may add so national?

My particular purpose in this communication, was to call your attention to an act of the Legislature of this State at its last session, which for its wisdom and patriotism reflects honor on the State. This law requires the agents and inspectors of the state prisons to cause the manufacture of silk goods to be introduced and carried on in those prisons, and for this purpose they are authorized to purchase as well cocoons raised in this country as the raw material imported, at such prices as they may deem reasonable, and to extend the business, as the same can be prosecuted, in the judgment of the inspectors, with a prospect of ultimate success.

The probable and almost certain effects of this law will be to introduce into this State the manufacture of silk immediately, without waiting indefinitely the enterprise and patronage of private individuals. The certain effects of the act will be to stimulate and encourage the culture of silk by opening two certain and steady markets for the purchase of cocoons; and when we reflect that the facilities for transporting cocoons to the prisons are unequalled, there is every inducement to commence the culture of silk without loss of time.

There will, however, be a great inducement with our females, by the enhanced price of reeled silk over the cocoons, to reel off the silk from the cocoons they produce, and sell it in that shape. They will have their option, either to sell the cocoons, or the silk in its raw state. Those who prefer the latter mode, by the aid of Gay and Mosely's new invented reel, will soon perfect themselves in the art of reeling.

What magnificent results must follow a general attention to the culture of silk!

We shall avoid a direct annual drain from the United States of more than \$10,000,000. This amount, instead of being drawn from the country for the support of foreign agriculturists and mechanics, will go to reward and invigorate our own. In the course of a few years we shall become exporters of American manufactured silk, as well as the raw material. It is a business, too, which cannot be overdone; the demand will always bear a just proportion to the product. In many coun-

tries, particularly Great Britain, the climate is not genial to the worm; while in ours it is established beyond controversy, that we may produce, with proper care and skill, silk of as fine a texture and lustre as is produced in Italy or France.—*N. Y. Farmer.*

MORUS MULTICAULIS.

For sale at the Agricultural Warehouse, 51 and 52 North Market street, any number of Trees of the *Morus Multicaulis* or Chinese Mulberry. These trees were propagated in this country. The superiority of the foliage of this tree as food for the silk-worm over all other, has repeatedly been tested, and is proved beyond a doubt. The price for Trees, from 4 to 5 feet high is \$30 per hundred, \$1.50 per dozen, 50¢ single. Trees but 2 or 3, with good roots \$25 per hundred.

GEORGE C. BARRETT,
New England Farmer Office.

WHITE MULBERRY TREES WANTED.

The subscriber is desirous of purchasing 100,000 White Mulberry Trees, 3 years old, thrifty and of good size, for which \$3 per 100 will be paid
G. C. BARRETT.
Boston, July 29, 1835.

GRASS SEEDS.

30 Casks Clover Seeds—prime quality, 10 do. Timothy; 100 Bushels Red Top; 500 lbs. White Clover.
For sale by
GEO. C. BARRETT,
New England Seed Store.

SILVER FIRS, &c.

WILLIAM MANN of Bangor, Me. will execute at short notice orders for Silver Firs, Evergreens, &c. well packed and in good order.
april 8. '34

COMPLETE SET OF THE FARMER.

For sale at this office, one complete set of the New England Farmer comprising twelve volumes, neatly and well bound, and perfect. Price \$3 25 per volume, *cash*.
Feb. 18.

CHERRY STONES WANTED,

For which a liberal price will be paid. Apply at the office of the New Eng and Farmer.
July 15.

SILK COCOONS WANTED.

The subscriber, encouraged by the late act of the Legislature to reel and throw American Silk, wishes to purchase at the Agricultural Warehouse in Boston, Silk Cocoons, and will pay \$3 per bushel for the best, and in proportion for poorer ones.
[n6] G. C. BARRETT.

FARM FOR SALE OR EXCHANGE.

An excellent Farm containing 70 acres, situated in Marlborough, Mass., with a house and barn thereon, for sale, or would be exchanged for property in the city of Boston. For terms and particulars inquire of G. C. BARRETT at this office, or N. B. PROCTOR, Esq. of said Marlborough. 6m

FARM WANTED.

A farm is wanted within 20 miles of Boston, for the cultivation of the Mulberry Tree, to consist of from 200 to 300 acres; to be high land and easy to cultivate. Any person wishing to sell such a farm, by forwarding a simple Bond, that the price may be known and relied upon, a Committee will examine the premises; as it is determined to purchase the best Farm offered this Autumn.

Address may be made to—

THO. WHITMARSII, Boston or Brookline.
WM. H. MONTAGUE, Boston,
JOSIAH DANIELS, do.
GEO. C. BARRETT do.
JOHN ASHTON, Boston or Roxbury.

Aug. 12. if

HORSE RAKE.

Just received at the Agricultural Warehouse, a few first rate Revolving Horse Rakes.
July 8.

WHITE MULBERRY SEED, Growth of 1835.

Just received 50 lbs. of White Mulberry Seed growth of 1835, saved with much care from good, thrifty trees, expressly for the New England Seed Store. For sale by

GEORGE C. BARRETT.

N. B.—As the quantity will probably be inadequate for the demand the next season orders should be sent early.

Jan y 29.

VALUABLE WORK ON FRUITS, VEGETABLES, SILK, &c.

Just published and for sale by GEO. C. BARRETT, THE NEW AMERICAN ORCHARDIST, or an account of the MOST VALUABLE VARIETIES OF FRUIT, of all climates, adapted to cultivation in the United States, with their history, modes of culture, management, uses, &c., and the CULTURE OF SILK; with an Appendix on VEGETABLES, ORNAMENTAL TREES and FLOWERS. By WILLIAM KENRICK.

A new edition, enlarged and improved. A chapter on "Climate" another chapter on Modern or Landscape Gardens, —also, a Practical Treatise on Mulberry Plantations, and the Culture of Silk, and the whole Class of Vegetables being now for the first time added and all that relates to them.

1 vol. 12mo. 420 pages elegantly bound. Price \$1.

New England Farmer's Almanac For 1836.

Just published by JOHN ALLEN, & CO. Corner of Washington and School streets, up stairs, and by GEO. C. BARRETT at the Seed Store No. 51 and 52, North Market Street, FESSENDEN'S NEW ENGLAND FARMER'S ALMANAC for 1836. For sale also by Booksellers, Shopkeepers, &c., generally.

This Almanac will be found one of the most interesting and amusing of the series, of which it composes No VIII. It consists of the usual astronomical calculations, humorous poetical sketches of the months; observations and directions relative to the employment of the Farmer, which will be found appropriate to each month in the circle of the seasons, "Agriculture and Rural Economy," including cuts and descriptions of many of the most useful implements employed in tillage. Valuable Recipes; Husbandry Honorable, a pithy piece of paramount poetry. The Splendors of the Setting Sun, a poetical effusion; Aphorisms; Eulogy on the Art of Agriculture; Calendar of Courts, Roads, Distances, &c, &c.

NEW WORK ON SILK.

In press, and will be published Sept. 1, 1835, THE AMERICAN SILK GROWER'S GUIDE, being the art of raising the mulberry and silk on a new system of successive crops in a season. By WM. KENRICK. The work will contain about eighty pages, well bound in cloth, and afforded to subscribers at 37½ cents.

GEORGE C. BARRETT,
New England Farmer Office.

SPLENDID BULBOUS ROOTS.

Just received at the New England Seed Store, an assortment of Bulbous Roots, comprising the finest varieties of Tulips, splendid variegated red, yellow and mixed, with the colors marked on each.

Hyacinths. Double and single, a fine assortment, with the colors marked on each. Also an assortment of fine double and single Hyacinths mixed without names.

Polyanthus Narcissus. Fragrant white with single cups, and extra sized roots.

We shall open in a few days a further supply of fine Bulbous Roots from Holland, among which will be bulbs of e. ery kind and color, which will complete a superb assortment.

SCILLA PERUVIANA, a rare bulb, from the Archipelago; produces a splendid flower may be grown in pots or in the garden, perfectly hardy. Prices—50 cts. 25 cts and 12½ cts according to size.

TULIPS, a large and splendid collection, growing in the Horticultural Gardens connected with the New England Seed Store.

sep. 2.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES,	barrel	2 50	3 00
BEANS, white,	bushel	1 75	2 00
BEEF, mess, (new)	barrel	13 00	13 50
Cargo, No. 1.	"	11	11 50
prime,	"	9 00	9 50
BEEFWAX, (American)	pound	20	24
BUTTER inspected, No. 1,	"	16	20
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	40	45
southern, geese,	"	35	39
FLAX, American,	"	9	10
FLAXSEED,	bushel	1 25	1 37
FLOUR, Genesee,	cash	6 62	6 61
Baltimore, Howard street,	"	7 00	7 12
Baltimore, wharf,	"	6 75	6 87
Alexandria,	"	5 81	6 37
GRAIN, Corn, northern yellow	bushel		1 00
southern yellow	"	90	95
white,	"	81	90
Rye, northern,	none.		
Barley,	"		
Oats, northern, (prime)	"	48	50
HAY, best English,	ton	22 00	25 00
eastern screwed,	"	16 00	17 00
hard pressed,	"	17 00	20 00
HONEY,	gallon	37	42
HOPS, 1st quality	pound	13	14
2d quality	"		
LARD, Boston, 1st sort,	"	11	12
southern, 1st sort,	"	9	10
LEATHER, slaughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	19	21
do. upper,	"	18	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	1 00	1 04
PORK, Mass. inspect. extra clear,	barrel	20 50	21 00
Navy, mess,	"	16 00	16 50
bone, middlings,	"		
SEEDS, Herd's Grass,	bushel	2 25	2 37
Red Top,	"	70	80
Red Clover, northern,	pound	9	10
White Dutch Honeysuckle,	"	25	63
SILK COCOONS, (American)	bushel	2 75	3 00
FALLOW, tried,	cwt.	7 50	8 00
WOOL, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	60
do. 3-4ths do.	"	50	55
do. 1-2 do.	"	42	50
do. 1-4 and common	"	45	47
Native washed	"	38	60
Pulled superfine,	"	55	60
1st Lambs,	"	45	50
2d do.	"	33	38
3d do.	"	25	30
1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	10	11
southern, none.	"		
PORK, whole hogs,	"	6½	6½
POULTRY,	"		
BUTTER, (tub)	"	14	18
lump	"	24	28
EGGS,	dozen	16	18
POTATOES, new,	bushel	62	75
CIDER, none of consequence,	barrel	3 50	4 00

F E S S E N D E N ' S
S I L K M A N U F A C T U R E R ,
AND
P R A C T I C A L F A R M E R .

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I. BOSTON, OCTOBER, 1835. NO. 6.

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BOSTON, OCTOBER, 1835.

**FACTS AND OBSERVATIONS RELATIVE TO
THE CULTURE OF SILK.**

ON REELING SILK.—“The cocoons, or produce of the worms, as soon as completed, are either reeled off or sold to others to be reeled. The silk as formed by the worm is so fine, that if each ball or cocoon was reeled separately, it would be entirely unfit for the purposes of the manufacturer. In the reeling therefore, after the cocoons are cleared from the floss, the ends of several are joined and reeled together out of warm water, which, softening their natural gum, makes them stick together so as to form one strong smooth thread. As often as any single thread breaks or comes to an end, its place is supplied by a new one, so that by continually keeping up the same number, the united thread may be wound to any length. The single threads of the newly added cocoons are not joined by any tie, but simply laid on the main thread, to which they adhere by their gum; and their ends are so fine as not to cause the least perceptible unevenness in the place where they are laid on. Care should be taken in the operation that the silk when reeled off may consist of a smooth thread of equal thickness and strength, not flat, but of a round form, having the small threads of which it is composed as equally stretched and firmly united as possible, and that

the several rounds as they lie on the reel should not be glued together. When the skein is quite dry it is taken off the reel, and a tie is made with some of the refuse silk on that part of the skein where it bore upon the bar of the reel, and another tie on the opposite part of the skein, after which it is doubled into a hank, and usually tied round near the extremity, when it is laid by for use or sale.”—*Loudon.*

Mr Kenrick, in his *Silk Grower's Guide*, asserts that “the use of the reel requires dexterity and practice. The cocoons, after being cleared of floss, are thrown by handfull into basins of pure soft water, placed over small furnaces of charcoal fires. When the water is almost at boiling point, sink the cocoon with a whisk of broom corn under water for two or three minutes, to soften the gum and loosen the fibre. Then moving the whisk lightly, the filaments will adhere to it, and may be drawn off till the flossy silk is unwound, and the fine silk comes off. A sufficient number being collected, the reeling begins. If the pods leap upwards, the reel must be slackened; if the silk comes off in bars, you must turn faster; if the water is too hot, they furze in unwinding, and the fine lustre of white silk is injured, and cold water must be added. It requires long practice dexterously to attend to the splicing on the fibres to keep up an even thread, as the silk grows continually finer to the end of the cocoon.”

Mr Cobb, in giving the “Method of reeling cocoons and manufacturing silk in Connecticut,” states that “a large kettle set in a furnace, or in an arch, is filled with water, and fire is kept under it; and when it is about to boil a quart of cocoons is thrown into it,” &c.; and after describing other preparatory measures, he says, “Reeling is then commenced on a common hand reel (such as in

common use in families in New England for reeling yarn from the spinning wheel), and the silk fibres run off about as fast and with as little difficulty as yarn from a spindle. Some of the cocoons run off before others, and when on this account the thread becomes too small, all the fibres are broken off, and what is reeled is tied by itself on the reel, and another quart is then thrown into the kettle; the ends are collected and reeled in the same way as before, and each separate piece is tied by itself. When the reel is full, the pieces are all tied together, taken off, and immediately dried."

TEMPERATURE OF THE WATER IN WHICH COCOONS ARE IMMERSSED FOR REELING.—This is a point of much importance. If the water is made to boil, it will soon destroy the cocoons; and if it be not sufficiently heated, it will not dissolve the glutinous matter with which the silk of the cocoons is combined. In the Manual of Mr Rush it is observed that, "Instead of using a common stove or furnace to heat water for the cocoons, steam has been proposed and used by Messrs Gensoul and Aldini. Upon the plan of the first, the steam is admitted directly into the water containing the cocoons intended to be reeled; but the last adopts another mode, which, upon a large scale, is certainly to be preferred. A copper boiler, covered, and with a hollow bottom, has a vertical tube adapted to the centre of the cover, with a cock, by means of which the water intended to furnish the steam is admitted. This boiler will hold four pints (French),* and at the beginning of the process it is to be filled to nearly two thirds. The vertical cylinder has a tube with a cock, through which the steam is introduced into a wooden tub, placed on its side, to the external surface of a vase above it, and gives out steam at its extremity through a series of small holes, turned toward the bottom of the vase; the holes are to avoid the inconvenience arising from the too rapid escape of the steam. This vase is of copper, and contains six pints of water. The steam box is tinned on the bottom inside, and a little inclined to the side of the boiler, with which it communicates by a tube, with a cock, conveying back the condensed

steam to the bottom of the boiler. Thus the water into which the cocoons are put, is regularly and permanently heated, without the injurious ebullition of the water which takes place when steam is introduced directly into it, and which causes the rapid and irregular motion of the cocoons in the basin."

The Editor of this paper has invented an apparatus for heating cocoons for reeling, of which he hopes hereafter to give a definite description. He will now merely state some of its objects, principles and advantages. It is a boiler set in a cylinder stove, and surmounted by a vessel for heating by steam, inclosing another vessel holding the water in which cocoons are immersed for reeling. These vessels are both placed perpendicularly over the cylinder and boiler; and the whole apparatus occupies no more *ground room*, or space on the floor on which it is placed, than a common cylinder stove of a foot diameter. Its advantages are that wood or any other fuel, including the hardest anthracite, may be burnt, and the smoke or gas carried off instead of being diffused in the room, and inhaled by the reeler, as is the case when clay furnaces are used. It will diffuse a pleasant and healthful warmth in the room while heating the cocoons, and that without near so much fuel as would be necessary to produce the same temperature by a common cylinder stove of the same size not surmounted by the apparatus for heating cocoons.

The cocoons are placed in a situation tantamount to what chemists call a water-bath, in which the water can never be made to boil, so as to injure or destroy the cocoons.

The apparatus in which the cocoons are heated may be made to answer for evaporating decoctions, to obtain extracts in a thick, gummy or dry state, without the possibility of burning or injuring the substances by boiling or by too much heat; and the cocoon heater may be easily removed, and the boiler used for common culinary purposes.

It has been thought by good judges (although the experiment has never been tried) that this apparatus, with or without some alterations, will answer a valuable purpose for killing the chrysalis or insect in the cocoons, and drying them for use. But of this more in our next.

* A French pint is a quart American measure.

[For the Practical Farmer.]

SILK MANUFACTURE.

The subject of raising and manufacturing silk has been laid before the public so many times and in so many different shapes, that sufficient information has been elicited to prove the practicability and certainty of our being able to raise silk, and manufacture various silk fabrics, which can successfully compete with silks of any clime. And why should we not? The enterprise and researches of our citizens have stripped from the process of manufacturing all the mystification with which European policy, and our own prejudice had clothed it; so that it now appears a simple and easy process. Samples of beautiful silk have already been produced here, and when practice shall have been added, we may challenge rivalry with the most expert Europeans. Enough has been shown to convince any business man that this branch of industry will be exceedingly profitable. In fact, companies have been formed in several of the States for the sole purpose of manufacturing silk; and are making preparations to commence the business immediately. Most of those concerned in these companies are practical, calculating, business men, showing by the best possible argument that the business is considered safe. There are, however, a great many intelligent men who doubt the utility of our engaging in this branch of the business at present. But why do they doubt? Because it is new, and nearly all that they have heretofore heard has been to discourage any attempt of the kind. It would seem from the tone of J. D'Homergue's essays, that America could make no advances in the manufacture of silk, unless she followed closely in the step of Europeans.

Since these essays were first published, those interested in the subject have been looking forward with confidence to the time, when our ingenious countrymen should refute the insinuations of D'Homergue by commencing the manufacture of silk in their own way. Our intelligent mechanics have been laboring assiduously to construct machinery for that purpose: they have succeeded. Machinery differing almost wholly from any in Europe, and admirably adapted for the purpose for which it is intended, is already in successful operation, under the direction of the *Valentine Silk Company*, and at other places. Samples of goods produced by these machines are in the market, and are beautiful specimens of what American genius can accomplish.

The business is destined to become a great source of profit to the people of this country, and especially to those of New England, where free and willing hands, and intelligent minds, will master all that is complex in it.

The legislatures of the different States feel the

importance of this subject, and ours, with a commendable spirit, at its last session passed a resolve, allowing 50 cents per pound on all silk reeled or thrown within the Commonwealth.

The culture of cotton was introduced into this country in 1785. The manufacture of it was not commenced until a number of years after; not a half century has elapsed, yet how vast and important has it become to our whole country. If the manufacture of cotton has risen to such a degree of prosperity in so short a time, will not the manufacture of silk be of much greater importance in less time? Yes: because the facilities for obtaining the raw article are greater, and the process of manufacturing equally easy; besides, while the climate adapted to the growth of cotton is confined to the Southern States, that adapted to the production of silk is extended over nearly our whole territory.

A writer, when speaking of this subject (the manufacture of silk), says, "It is observed that all those countries that produce the best silk border upon the sea. Our country (meaning the United States) will produce the best of silk, and as fit for organzine as any in the world; and, if attended to, will be of as great advantage as any in the States, for, as I have already observed, the manufacture of silk is a most profitable undertaking, where the land and air are proper for raising it." C.

THE MORUS ALBA, OR WHITE ITALIAN MULBERRY.—The Baltimore Farmer and Gardener states, that "in order to make 'assurance doubly sure,' he would recommend to persons who have sown seed of this tree, the present season, to cover their plant beds as soon as winter sets in, either with straw, or long stable manure, to be confined by a slight covering of small brushwood, which should be permitted to remain on the beds until about the middle of April, when it should be gradually removed, so as not to expose the plants too suddenly to the changes of the weather at that unsettled season of the year. This precaution will not be necessary after the first winter." The seed of this mulberry may be had of Robert Sinclair, Jr. in Baltimore, which the editors of the *Farmer and Gardener* recommend, "as being fresh, having seen some of it tried, and sprouted in about 36 hours."—*Hampshire Gaz.*

SILK COMPANY.—We learn that another Silk Company has been formed in this city, and has purchased a spot for the location of their establishment at Woburn, on the Lowell Railroad. It contains 280 acres, and cost about \$15,000.—*Norfolk Advertiser.*

[From the Southern Agriculturist.]

On the diseases of Trees, and methods of Cure.

When it is observed of a tree, that it does not shoot forth, we are certain that it is either punctured to the liber or white bark, or that it is deficient in nourishment from the poverty of the earth, in which it is planted, that will in time prove its destruction. The remedy is to lay bare the roots in the month of November, for three feet around the tree, and put in three or four baskets of well rotted cow manure; throw upon this three or four buckets of water to force the manure amongst the roots, after which fill up the hole with the same earth that was taken out of it; the roots becoming refreshed, throw out new fibres, and the year after the tree will be seen shooting forth its green foliage again. If the summer is very dry you must throw two buckets of water around it from time to time. The winter following, in trimming the trees you must not leave as many branches as on those that have always been in good health.—Trees of every description are cured in this manner.

Bad soil.—Fruit trees accommodate themselves more to warm light earth than to that which is cold and wet.

Diseased roots.—Frequently a tree, all of a sudden, after having thriven many years, will become weak and languid: this arises from the roots becoming rotten from having been planted too deep, from the many fibres, from humidity or otherwise. This is easily remedied by laying bare the roots in autumn, and cutting off such as are decayed, up to the sound wood.

Exhausted earth.—If the tree languishes in its sound roots, the malady arises from the earth being too much exhausted. To reanimate it, remove the exhausted earth and replace it with new; afterwards throw around the foot of the tree two good baskets of cow manure, if the earth is warm, or that of the horse if it is cold, and when the time arrives to trim it, cut out the old wood. If it does not shoot forth well the succeeding year, it ought then to be dug up and thrown away.

To regenerate old trees.—When you have in your garden a very old tree, whose branches on the right and left indicate dying, you may calculate the cause to be in the roots: it wants nourishment, and the earth about its feet is too old, exhausted and dry. To give it again health and vigor, lay bare the roots in the month of November, for four feet square all around them so as not to injure them; afterwards throw five or six baskets of well rotted cow manure above the roots, the fall and winter rains will decompose it; if the winter is dry, you must water it, in order that the liquor of the manure may become a kind of pus to nourish the roots; the sap will begin to flow, and

the earth and tree revive. In the month of February, cut the old branches to the body of the tree, covering the wound so as to prevent either rain or the sun from doing any injury. After the first year, the branches will be three feet; and, if it is a tree which ought to be trimmed, the winter after trim the branches a foot long. This manner of resuscitating all kinds of trees is excellent.

Trees diseased on one side only.—If a tree is diseased on one side and vigorous on the other, lay the roots entirely bare, remove the diseased part, and cut the larger roots in order to make the tree equal, and the circulation of the sap more general; put new earth above the roots, even if they should not be unhealthy, and two or three baskets of manure as above.

When you trim this tree, leave the vigorous side long, and you must leave all the fruit branches, even the weakest, so as to draw the sap: trim very close the diseased side; cut off all useless branches, and leave a few fruit branches.

Yellow leaves.—This disease arises often from the same cause as that of the disease last spoken of, that is to say, exhausted earth. In such case administer new earth mixed with manure reduced nearly to that of common earth; or, without entirely uncovering the roots, with ashes and soot, these materials are very good for light earths. When the ground is cold, pigeon dung is very good, particularly where it has been in a heap for two years, to ameliorate its strong heat; spread it an inch deep about the foot of the tree, and in the month of March following bury it. For the want of this dung, you must take away the old earth from around the tree and replace it with new, mixed with fine well rotted horse manure. If the yellowness arises from the earth being damp, take horse-dung mixed with water, so as to form a kind of pap, make a trench around the foot of the tree, pour in the mixture, cover it, and let it thus remain: it will reanimate it. If the yellow leaves arise from a contrary cause, that is, from the soil being too light and dry, you must as soon as the month of November arrives uncover the roots, and put above them the scrapings or settlings of a pool, well-drained, worn out, and exhausted street mud; hog-dung or other similar manure: these simple and easy means will resuscitate them.

A tree often becomes yellow from having given too much fruit, and exhausting its substance. In this case you must pull off a part of the fruit, and apply fresh nourishment to the roots.

When a tree appears to languish, make a circle around the foot of it, in which you must put any convenient manure; in trimming it, cut off all superfluous wood, and after having filled up the hole in which you have put the manure, leave nature to act, and she will resuscitate it soon. In digging around the tree, keep off at from two to

four feet distance, observing as you approach the tree to dig carefully around the mound in which the roots are formed.

Sterility.—Open the earth about the foot of the tree, cut off the extremities of the large roots, shorten those that are too long or far off, and all the small ones near the trunk; throw good new earth upon them and cover them up.

Means to produce fruit from trees which flourish well, but whose fruit becomes blighted almost every year.—There are some trees which are charming to the sight when in blossom, but which retain none of their fruit: in this case, at least six buckets of water thrown around them when in full bloom, will answer a good purpose. If you have not so much water, you may refreshen the tree by sprinkling the buds. When the fall of the blossoms is in too great an abundance, bleed the tree or prune the roots.

Inertness of the sap.—In very cold and dry summers in which there is not much rain, it happens that the sap ceases to flow by degrees. You will then see a great portion of the fruit, particularly peaches, which have the most need of a large stock of sap to acquire maturity, fall or prove abortive. The only remedy in this case is to open around the foot of the tree, and to throw in a bucket of water to open the pores and revive the sap, which will prove well that watering and vigilance are necessary in gardening.

When the spring is dry and cold, it happens often that a peach tree does not shed its blossoms, the flower attaching itself to the small nut of the peach, dries it up, and makes it fall; to remedy this, you must bare the roots and throw in buckets of water, and when it is dried up, cover them again with earth, and continue watering them every week during the months of March and April, until you find the fruit safe and well grown; this raises the sap and saves the fruit; it is good to water freely peach and apricot trees during the great heat of summer, and above all, when the fruit is approaching to maturity. When the fruit is well grown, the tree must be thinned of those that are superabundant, which not only makes the fruit grow larger but better, it also preserves the vigor of the tree, which would become ruined in two or three years, if you do not proportion the fruit to the strength of the tree. Peaches, nectarines, and apricots, must be thinned in May. Only a few fruit must be suffered to remain on the weak branches.

When the heat is great, and a continual drought, at the end of July, and during the month of August, it is good to throw around the foot of the tree, and particularly the peach, a bucket or half bucket of water, so as to rouse the sap and prevent the fruit from falling half ripe. When you

observe the tree languish, and the fruit advance very slowly and fall in great numbers, you may be sure it is in the sap; you must then put water to the foot of the tree, for which purpose you must make a trench around it at a short distance, so that the water may be better held, cover the earth with leaves or straw, and throw water on it, so as to enable the earth to preserve its freshness.

To give fruit a fine color, about the end of June clip with a scissors those leaves that surround the fruit, and when they have grown nearly to their size, remove all their leaves from around them, so that the dew, rain and sun may penetrate, paying attention to the soil, the weather, and the strength of the fruit, for delicate fruit becomes scorched if laid bare too soon, and if too late, will remain without color and taste. Peaches and apricots should be laid bare only fifteen days previous to their being ripe, otherwise the fruit would become defective and imperfect about the stone. By jetting water with a syringe upon fruit exposed to the sun two or three times a day, you will give it a peculiar and curious color, but at the same time impair the quality.

When the severity of the heat occasions the fruit to fall, instead of watering, dig round the roots two inches deep, which fill up with the ashes of wood, and to prevent the wind from blowing it away, cover this with earth.

Peach and apricot trees are liable to what is termed the blight, which is an injury that shows itself by the leaves becoming crimped, shrivelled, dull and yellow, they fall about the first rain; you have nothing to do but first to remove all the blighted leaves, so that the new foliage of the succeeding spring by force of the sap of those which have been blighted, come quicker.

To remove gum you must with a proper instrument cut down to the inner part of the tree, and cover the wound with dry earth tied on with a cloth.

This is the general method of treating diseased trees in France, which from similarity of climate with that of this country, will apply here. Many persons believe it to be only necessary to plant a tree, and that nature will do all the rest. It is true, we must depend upon nature for the success of our endeavors; but we must recollect that the fruit trees we cultivate, are not indigenous to this climate, and that our want of skill and judgment in planting and nourishing them, may embarrass the operations of nature in bringing the fruit to perfection. It becomes necessary, therefore, to ensure success, that we should aid nature in her operations, by removing all obstructions to her efforts, and furnishing the proper attention and nourishment for the prosperity of the tree. In order to effect this, observation and experiments are necessary; and ordinary care and attention to

the method prescribed above, will be sufficient to accomplish our purpose.

How much, then, is to be deprecated that want of zeal, which is so clearly manifested in this section of the country in relation to the cultivation and care of fruit trees. Providence has peculiarly blessed us with the means of indulging in most of the luxuries enjoyed by other sections of the globe, but our apathy appears to have created a total disregard to her munificent blessings in this respect. There is no spot on earth where most of the stone fruit of other climes, could be cultivated in more perfection than in this State. The diversity of soil produces diversity of fruit, and although, on Charleston Neck, peaches and nectarines are destroyed by various insects, yet, all kinds of plums and cherries may be raised in great perfection: some of the latter raised there by Mr Michel, are equal in every respect to any ever produced in a more northern climate. Cultivators instead of importing and increasing the fine plums of France, appear to be satisfied with the miserable trash that grow unheeded and uncared for in thickets. This negligence is reprehensible and ought to be corrected.

A FRENCHMAN.

[From the Baltimore Farmer.]

DIRECTIONS

FOR SOWING THE SEED AND RAISING THE PLANTS OF THE WHITE ITALIAN MULBERRY TREE.

1. To sow an ounce of seed, prepare a bed 50 feet long and 4 feet broad. Manure it *well* with a compost composed of one third ashes, and one third decomposed leaves from the woods, or garden mould; dig *deep*, pulverise finely, and then lay the bed off in drills 12 inches apart, one fourth or one half of an inch deep; sow the seed as thick as you would onions or parsnips; cover with rich mould, press the mould down gently, but sufficiently to cause the seed to come into contact with the earth; and should the weather be dry, water the seed bed every other evening, it will assist in promoting the germination of the seed and vigorous growth of the plant.

2. Keep the beds clean of weeds; and should they receive an occasional watering with suds or soot and water, say once a week after they are up, if planted this month, August, they will be fit to transplant into nursery rows in April next, or if not desirable to be so removed, they may be permitted to remain until the ensuing spring, care being taken to keep the bed clean of weeds, the earth stirred and watered in dry seasons.

3. The second year, if not removed before, the plants must be removed into the nursery rows, which must be prepared as for any other crop. The ragged roots being taken off and the tap root shortened, the plants must be planted out twelve

inches apart in rows three feet apart, the earth to be well trodden around the plant. As before, the earth must be kept open and free from weeds.

4. At two years old the plants may be planted out into hedges, at 18 inches apart, in rows six feet wide. The ground should be prepared as before directed and some good rich mould put into the holes to be pressed around the plant. If intended to be planted out as standard trees, 20 feet square apart would be a good distance; but in that case the plants should not be transplanted until they are about an inch in diameter. In either case they will require trimming and topping, and if kept as hedges should be treated as other hedges are.

ROBERT SINCLAIR, Jr.

AMERICAN SILK.

We have received a sample of exquisitely beautiful silk, produced on the farm of E. Goodrich, Esq. of Hartford, Conn. which we design to exhibit at the anniversary of the State Agricultural Society. The sample was reeled on the Italian reel. It is worth from five to six dollars per lb. A young girl, after one day's practice, can reel a pound per day.

Mr Goodrich, we believe, has planted out more mulberry trees than any other person in the United States; and while we tender to him our thanks for the beautiful specimen of silk which he has sent us, we cannot be unmindful of his ability, nor can we doubt his willingness, to lay us and the public under still greater obligations, by communicating for the Cultivator, some results of his experience and observation in the silk business. Under these impressions, we respectfully solicit from Mr G., in behalf of the public as well as of ourselves, answers to the following queries, and such other information upon this interesting subject as he may please to communicate.

1. Can the silk business be profitably managed by the generality of farmers — or by any particular and what class of them?

2. What is the nature of the bounty offered by the state of Connecticut for the cultivation of silk, and its probable advantages or disadvantages?

3. Does there promise to be a ready and permanent market for cocoons — and can the reeling process be managed with economy and profit by the cultivator?—*Cultivator.*

RAISING COCOONS.

The Silk business will be best prosecuted in this country by having it systematized as in France and Italy. Raising the cocoons is one branch, and not an expensive but rather a simple process. Mulberry trees can be had at a trifling cost, and when two or three years old, will furnish abundant food for worms. They need occupy no

ground which could be appropriated to other uses. They can be planted by the side of fences in rows all about a farmer's homestead. Even planted so close as to form an impervious and beautiful hedge, a valuable substitute for wooden fences.

When the worms are hatched from the eggs a portion of the barn or wood house can be appropriated to feeding them. About six weeks only are occupied in the process, and the leaves can be plucked and all needed attentions given the worms by young boys or girls with very little experience. After the feeding is over, and they begin to wind their cocoons, they require no further attention. The work is infinitely more agreeable, as well as lucrative than the sedentary employment of covering buttons, or even working at palm-leaf hats or straw-braiding.

When the cocoons are wound, they can find a ready cash market. The large establishments which are coming into existence in this country, both for raising worms and winding and weaving the Silk, will consume more than can be had for twenty years. In France and Italy the leaves are furnished by one class of persons, another buys them and feeds the worms, while others purchase the cocoons and wind them for a fourth class, who manufacture the silk. Cocoons are sold as most other commodities are, carried into market by the peasantry every morning, where purchasers are ever ready to secure a good article. We earnestly urge upon every farmer to plant mulberry trees, and furnish a healthful and lucrative employment for his little ones.—*Norhampton Cour.*

SILK.—We were shown yesterday a piece of Silk of fine texture and durable fabric, just cut from the loom in the Silk Works of Mr Joseph Rotch, in this town. Mr R. uses Mr Gay's improved machinery, and his establishment now in successful operation offers to our agriculturists a ready market for silk cocoons in any quantity in which they can be supplied. We learn that this establishment is only second to one in Providence yet in operation in this country, and it is the intention of the proprietor considerably to enlarge its operations as soon as the necessary supply of cocoons can be relied upon.—*N. Bed. Mer.*

HINTS TO FARMERS.—Never feed potatoes to stock without boiling or steaming, as this increases their nutritive qualities.

One bushel flax-seed, ground with eight bushels of oats, is better for horses than sixteen bushels of oats alone, and will effectually destroy the bots.

Never burn all dry wood in your fire place, nor use a fire place when you can get a stove.

Cut your trees for rails in February, as they are most durable.

Never dew rot your flax, unless you wish to render it worthless.

Never select your seed corn from the crib but from the stalk.

Never feed out your best potatoes and plant the refuse, nor sell your best sheep and keep the poorest.

A fat ox is worth more than a poor horse, and does not eat as much — a yoke and chain can be bought for less money than a wagon harness.

STEALING FRUIT We are among the admirers of General Smith's sentiment, lately given at the Baltimore Exchange, when the mob were styled fellow citizens. "Fellow citizens!" exclaimed the indignant veteran, "the man that plunders the house of my neighbor is *not* my fellow citizen." Now we would inquire if the sentiment might not be extended a little further, so as to include the marauder who plunders his neighbor's fruit? and for whom the laws of this land have prescribed fine and imprisonment.

This summer, two youngsters have been shot in this district during their attempts at stealing fruit. For the first, an apology was made in the newspaper that he was only in a frolic; and we regret that any countryman of ours, having the control of a *press*, should have no higher standard of morality than to offer such a plea in vindication.

"If a plunderer comes into my garden," said a friend of ours to a learned judge, "how ought I to proceed?" "You are to defend your property," was the reply. "Arrest him on the spot; and if this cannot be done peaceably, you are authorized to do it forcibly. If you use no unnecessary severity you will be justified."

MAMMOTH CHEESE. We are informed that Col. Thomas S. Meacham, of Richland, Oswego co. who keeps 154 cows and has made this season 300 cheese weighing 125 lbs. each, has made one weighing *fourteen hundred pounds*, which he intends to present to the President of the U. S. He has also made several, weighing *eight hundred pounds* each, one of which he intends for the Vice President, one for Gov. Marcy, and one for each of the cities of New York, Albany, Troy and Rochester.—*Roch. Daily Adv.*

APPLE JELLY.—The apples are to be pared, quartered, the core completely removed, and put into a pot without water, closely covered, and placed in an oven over a fire. When pretty well stewed, the juice is to be squeezed out through a cloth, to which a little of the white of an egg is to be added, and then the sugar. Skim it previously to boiling, then reduce it to a proper consistency, and an excellent jelly will be the produce. *It.*

EXTRACT OF A LETTER FROM MR HARVEY JOHNSON, OF HOLLAND, COUNTY OF ERIE.

[It is not my intention to tax the reader with all the details of the history of silk, nor even of its first introduction into this country; but there is something so interesting, at least to me, in the plain unstudied style of Mr Johnson, added to the circumstance that the facts he relates were mostly known to me at the time (for I am some years his senior, and was brought up near the same neighborhood), that I cannot deny myself the pleasure of publishing part of his letter. I would now give more for his gloves than for any other pair in existence. — *Ed. Silkworm.*]

DEAR SIR — Although a stranger, I take the liberty to address you on a subject which I have long considered of incalculable importance to our country — I refer to the subject of silk. My introduction will be an awkward piece of work, as I must assume the character of the egotist.

My native place is New Haven, Ct. Some fifty years ago, my father set out about two thousand white mulberry trees, from which a great quantity of silk was made (I mean a great quantity for that day). He carried on the business for a number of years. He raised a great many worms himself, and let his trees to several individuals, and had a certain part of the raw silk. My father's family consisted of eight children, five daughters and three sons. They were not all of them able to do much towards picking leaves, &c. but with a little help from the apprentices (for my father was a mechanic) occasionally, they managed the business so as to feed a great many worms. I think he kept one year over two hundred thousand. This was an unfavorable year (I think it was 1794); a late frost killed the leaves after the worms had hatched, or at the time they were hatching, so the growth of the worms was much backened by lack of leaves. Some individuals had to go into the woods, and gather wild leaves; but the balls were not so large and solid as in good years.

It is not worth while to mention all the particulars which occur to mind; but every thing relating to the business was done to great disadvantage. My father's land lay in detached pieces; one large orchard was one and a half miles off. It was difficult to find workmen who understood dyeing, weaving, or manufacturing any way. Still we made a number of pieces of cloth for women's and men's wear, one piece of handkerchiefs, and a number of pairs of stockings, some knit and some wove, and some pairs of gloves. I have yet a pair of the gloves, which were made, I believe, thirtyfive years ago, which I prize very highly.

RECEIPTS.

OTTAR OF ROSES.—The royal society of Edinburgh received from Dr Mouro the following

account of the manner in which this costly perfume is prepared in the East. Steep a large quantity of the petals of the rose, freed from every extraneous matter, in pure water, in an earthen or wooden vessel, which is exposed daily to the sun, and housed at night, till a scum rises to the surface. This is the *ottar*, which carefully absorb by a very small piece of cotton tied to the end of a stick. The oil collected, squeeze out of the cotton into a very diminutive vial, stop it for use. The collection of it should be continued whilst any scum is produced.

ESSENCE DE JASMIN.—The flowers are stratified with wool or cotton, impregnated with oil of behu, or nut oil, in an earthen vessel, closely covered, and kept for some time in a warm bath; this is repeated with fresh flowers, until the oil is well scented; the wool, &c. is then put into a sufficient quantity of spirit of wine, and distilled in *balneum marie*.

THE BEST HONEY WATER.—Take of coriander seeds a pound, cassia, 4 oz., cloves and gum benzoin, each, 2 oz., oil of rhodium, essence of lemon, essence of bergamot, and oil of lavender, each, 1 drachm, rectified spirit of wine, 20 pints, rose water, 2 quarts, nutmeg water, 1 quart, musk and ambergris, each, 12 grains. Distill it in a water bath to dryness.

Another method.—Put 2 drachms each, of tincture of ambergris, and tincture of musk, in a quart of rectified spirits of wine, and half a pint of water: filter and put it up in small bottles.

EAU DE BOUQUET.—Take of sweet scented honey water 1 oz., eau sans pareille, 1 1-2 do., essence de jasmie, 5 drachms, syrup of cloves and spirit of violets, each, 4 dr., calamus aromaticus, long rooted cyperus, lavender, each, 2 do., essence of neroli, 1 scruple. Mix. Some add a few grains of musk and ambergris: it is sweet-scented, and also made into a ratafia with sugar.

CURE FOR THE DYSENTERY.—A table spoonful of vinegar, and a tea spoonful of salt, mixed with a gill of warm water. If relief be not afforded in ten or fifteen minutes, repeat the dose.

POPULAR ERROR.—*There is alcohol in every thing.*—Such is the remark often made by those who would parry the force of appeals that are made to them on the subject of temperance. Alcohol, they say, is diffused through every substance which God has made, and this is evidence that he designs it should be used. But unfortunately for the argument, they are entirely mistaken as to the fact. When God looked upon the world he had made, and pronounced it very good, *there was not a particle of alcohol in existence.* It was not till the work of death commenced, and some portion of

matter, *in a state of decay*, had undergone the process of fermentation, that alcohol was formed. True, the constituent materials exist in almost every created substance; but being there mingled in such proportions as God designed, they are adapted to the use and sustenance of the beings he formed. But by the mysterious and wonderful operations of nature, that change in the proportion and arrangement of these materials, that takes place during the process of fermentation, converts what was before a healthy article of food into a deadly poison. Naturally, there is alcohol in nothing.

Another.—Common bread is fermented before baking. It must therefore contain alcohol, and to act consistently with the new principle of temperance societies, we must debar ourselves from the use of bread unless we can be contented with that which is unleavened. Investigate a little further, and the objection will vanish. True the dough is fermented preparatory to baking, and alcohol is formed; *but it is evaporated by the heat of the oven.* The process of baking and that of distilling, are exact counterparts to each other. In each case, the materials are prepared for the process by fermentation, and the consequent formation of alcohol. In each case the alcohol is separated from the nutriment. But there is this important difference:—*the Distiller throws away the nutriment and reserves the poison; the Baker drives off the poison and reserves the nutriment.*—[Maine Temp. Her.

GLoucester CHEESE.

In the preparation of this cheese, the milk is, in the first instance, put into a cheese-cowl (which is a large deep tub) with two teacupful of rennet. A ball of annatto is then dipped in the milk, and rubbed on a piece of pantile, which is washed into the milk till the color is as high as required. The quantity of annatto is regulated by the wishes of the cheesefactor, some liking more than others. Originally only a small quantity was employed, to induce the belief that the cheese was rich, and to prevent its being discovered that skimmed milk had been used. But now almost all the cheese is highly colored; and the color is no criterion of the goodness of the article. After an hour has elapsed, the milk is converted into curd; this is cut with a cheese-knife, which is about fourteen inches in length, and has two edges: it is cut gently at first, and then very small. It is suffered to remain ten minutes, when the milkmaid puts her arms into the cowl, and draws the curd gently towards her, turning it over in the whey. She afterwards draws it again towards her to dip out the whey, which is strained through a sieve, and the small pieces of curd that are strained from it are returned to the cowl. The curd is then put into vats, in which cloths had been previously

hid. The vats are placed one on another, and put in a cheese press for ten minutes, a vessel having previously been placed underneath the press to catch the expressed whey. After this, the curd is taken out of the vats and broken small, and some hot whey is poured over it. The curd is then drawn to the side of the cowl to drain from the whey, which is laddled off and strained so that no curd may be wasted. Then the curd is again put into the vats, and they are pressed one on another; any curd that is pressed over the edges of the vats being put in the middle of the vats to make the mass as firm as possible. In an hour the vats are taken out of the press to have dry cloths, after which they remain in the press till night, when the compressed curd is taken out of the vats, turned and salted, and then replaced in the press, and there remains till morning, when it is salted, and also again the following evening. The second morning the cloths are taken off, but the cheeses are left in the vats seven or eight days, being turned night and morning. After that, they are put on the floor of the cheese-loft, (which is a large room on purpose for keeping cheese,) and turned every day for three weeks or a month. In two months the cheeses are scraped and painted. The paint is a red powder, which is strewed over the cheeses and rubbed on them with the hand. In three months, they are what is technically called "ready," and are fit for the cheese-factor.

The whey that drained from the curd, during the process of cheese-making, is put into trendles (a sort of tub) and suffered to remain till the next day, when it is skimmed. From this, whey butter is made, and the residue is given to pigs. The rennet is made by mixing salt and water till it will support an egg, and then boiling it half an hour. When it is cold, four calves' stomachs are put to a gallon of the brine, with bay leaves and slices of lemon. In six weeks it is fit for use.

For single Gloucester cheese, the vats, which are made of elm, are thirteen inches in diameter, and about two inches and a half in depth: for double Gloucester cheese, the same diameter, and twice, or more than twice the depth. All the dairy utensils, after being used, are washed with tepid water, and then scalded. In making the double Gloucester cheeses, and those that are called "truckles," the same method is pursued, except that more care is used in pressing the curd into the vats, which, for such cheeses, have three perforations to let the whey drain off; and bandages of cheese-cloth are put round when the curd is above the vat. Sage cheese is made by pounding sage and straining the juice into a pail of milk, to which rennet is then added. The same process is observed as for other cheese till the time when the warm whey should be poured upon it, when it is broken up with as much of the simple

curd as the milk-maid considers necessary, and treated as other cheese. To make the richest cream-cheeses, the thickest cream must be taken, and put, with a little salt, into a straining-cloth, which is hung twelve hours, in order that the whey may drop from it. When it is taken from the cloth, it is put between two pewter-plates, with a weight on the upper one, and turned daily during five or six days. These cheeses can only be made in this manner in warm weather. The milk that the cows give when they are first turned into the fields in the spring, and when they are afterwards pastured in fields that have been newly mown, yields nearly as much curd again as at any other period; and it is also much richer. The principal season for making the thin cheese is from April to November; and that for making the thick, May, June, and the beginning of July.

In different districts, the produce of cows differs very much; but in the vale of Gloucester, from 3 1-2 to 4 1-2 cwt. per cow is considered a fair annual average return. The same cow, on different pastures, will yield milk of very different qualities; from one will be made rank and unpleasant cheese, while the other will be fine and rich. An estimate of the profit and expenses of a farm for twenty cows can be, from the continual variation in the state of the times and local circumstances, of course only an approximation towards the truth. But the following, made in the vale of Gloucester in 1835, where the land is rich and excellent, is as accurate an annual average as the nature of the subject will admit:—

Rent of 40 acres, at 50s. for pasture,	£100	0	0
“ 20 acres for hay,	50	0	0
“ 2 acres of arable, for potatoes,	5	0	0
Making hay, 12s. an acre,	12	0	0
Carrying and ricking,	2	10	0
Expenses of raising potatoes and seed,	15	9	0
Tithes, 3s. 6d. in the pound,	27	2	6
Poor and other rates, 3s. 9d. in the pound,	29	2	11
Dairymaid, 7l. a year (besides board)	7	0	0
Dairyman, at 7l. a year (besides board)	7	0	0
Wear and tear of dairy utensils,	10	0	0
Salt,	10	0	0
Annatto, 4s. a-pound,	1	0	0
Rennet and paint,	1	4	0
Interest of money laid out in stock and implements, reckoning each cow at from 5l. to 10l. and the chance of loss,	20	0	0
Profit,	87	11	7
	£366	0	0
Cheese 4 tons, at 4 cwt. each cow, and at 49s. per cwt.	176	0	0
Value of whey,	20	0	0
Pasture of colts and sheep,	20	0	0
Profit of calves,	30	0	0
Butter,	90	0	0
Pigs,	5	0	0
Potatoes,	25	0	0
	£366	0	0

The capital necessary for the purchase of stock for such a farm would, according to present prices, be about 300l.; but as it is not prudent that

the whole of the capital should be expended, a man who had only that sum should take a smaller farm, and reserve a part for the payment of work-people, and other incidental expenses which would be required before much profit was derived from the farm. From the depressed state of agriculture, the present time is not by any means auspicious for the commencement of business as a dairy farmer. The requisite dairy utensils will cost about 25l.—*London Penny Magazine.*

FRUIT. Why are some fruits improved in sweetness by drying or half withering on the trees?

Because their watery parts thus exhale, and the sugar is virtually increased in quantity.

Why should grapes hang on the vine until they are perfectly ripe?

Because unripe bunches never get any riper after they are gathered.

Why should grapes be eaten soon after they are gathered?

Because, unlike other fruits, grapes do not improve in flavor after gathering.

Why should the crowns be removed from ripe pine-apples?

Because, when suffered to remain, they live upon the fruit till they have sucked out all the goodness.

Why does an apple, when cut, first appear white, and after a time brownish?

Because a fermentation arises from the rest of the fruit absorbing the oxygen of the atmosphere; the apple having previously been, by its tough skin, protected from the contact of the air.—*Donovan.*

Why are certain apples called russetings?

Because of their russet or reddish brown color.

Why should raspberries be eaten from the bush?

Because their flavor is the most fleeting of all fruit. Even a few hours will diminish it, and on the bush the flavor does not continue above two or three days after the fruit is ripe. If kept for two or three days when gathered, the flavor is almost entirely gone.

Why are chestnuts best preserved through winter in sand?

Because if there be any maggots in the chestnuts, they will come out, and work up through the sand to get air.

Why is fern preferable to straw for the bed between the layers of fruit?

Because it does not impart that musty flavor which is so often produced by the straw.

Why are the autumnal fruits, as plums, pears, &c., more crude and indigestible than those of summer?

Because, in part, of the state of the constitu-

tion. Thus, at the commencement of summer, the system is more nerved and braced by the atmosphere of winter and spring, and by the dryer food which necessity obliges us to take at those seasons; so that the cooling fruits of summer are wholesome from their opening the bowels, &c. But it is not wonderful that a continuance of watery and nutritious food like fruit, should, towards the autumn, produce debility in constitutions partly predisposed to it, by the continual and relaxing heat of the summer months.—*Knowledge for the People.*

SOWING MULBERRY SEED.

The following "directions for sowing the seed and raising the plant of the White Italian Mulberry Tree," are given by Mr Robert Sinclair, Jr., one of the proprietors of the Farmer and Gardener, a valuable agricultural paper published at Baltimore. They will be found useful to those who are commencing operations. All that is necessary is to manure the land well, sow good seed, water the plants should the season be dry, and keep them free of weeds by the frequent use of the hoe, and we will warrant a good growth, without charging any premium.

1. To sow an ounce of seed, prepare a bed 50 feet long and 4 broad. Manure it *well*, dig *deep*, pulverise finely, and then lay the bed off in drills 12 inches apart, 1-4 or 1-2 of an inch deep; sow the seed as thick as you would onions or parsnips; cover with rich mould, press the mould down gently, but sufficiently to cause the seed to come into contact with the earth; and should the weather be dry, water the seed bed every other evening; it will assist in promoting the germination of the seed and vigorous growth of the plant.

2. Keeps the beds clean of weeds; and should they receive an occasional watering with suds or soot and water, say once a week after they are up if planted this month, August, they will be fit to transplant into nursery rows in April next, or if not desirable to be so removed, they may be permitted to remain until the ensuing spring, care being taken to keep the bed clean of weeds, the earth stirred, and watered in dry seasons.

3. The second year, if not removed before, the plants must be removed into the nursery rows, which must be prepared as for any other crop. The ragged roots being taken off, and the tap root shortened, the plants must be planted out twelve inches apart in rows three feet apart, the earth to be well trodden around the plant. As before, the earth must be kept open and free from weeds.

4. At two years old, the plants may be planted out into hedges, at 18 inches apart, in rows six feet wide. The ground should be prepared as before directed, and some good rich mould put into the holes, to be pressed around the plant. If

intended to be planted out as standard trees, 20 feet square apart would be a good distance; but in that case the plants should not be transplanted until they are about an inch in diameter. In either case they will require trimming and topping, and if kept as hedges, should be treated as other hedges are.

[From the N. Y. Commercial Advertiser.]

Mansion House, Poughkeepsie, }
August 31st, 1835. }

The culture and manufacture of silk is now a subject of domestic economy which is engrossing much of the public attention; and I doubt not you will be gratified to learn, as will the friends of American industry generally, that the citizens of Dutchess are making extensive preparations for adding this to the other productive employments of the county. While engaged in his official duties at Washington, last winter, Mr Senator Tallmadge became acquainted with Mr Gananiel Gay, of Rhode Island, a gentleman well-skilled in the silk manufacture, who was exhibiting in the federal capitol certain improved machinery of his own, for the reeling and weaving of silk. Mr Gay seemed to understand the subject thoroughly, and his machinery was so perfect, according to a report of a committee of the house of representatives, as to bring within a single view the whole process of the art, from the reeling of the cocoons, to the completion of the most substantial and beautiful fabrics. After having looked into the subject for his own satisfaction, and becoming convinced of the excellent adaptation of the climate and soil of Dutchess for the growth of the mulberry, Mr Tallmadge arrived at the conclusion that the culture of silk might speedily be rendered of vast account in the productive industry of the county. At his instance, therefore, Mr Gay visited Poughkeepsie in the spring, and the result of consultation and enquiry, was the speedy formation of a company to enter at once upon this interesting branch of manufactures. The reader need not suppose that they were to wait for the planting and growing of the tree from which the worm spins its gossamer thread. There were already a sufficient number of the white mulberry trees planted and in vigorous growth, to show that there need not, and would not long be a lack of the rich material, when a demand should be created for it. The erection of a manufactory was therefore commenced, and orders sent to the silk-growing countries of Europe for the raw article wherewith to begin the manufacture. The edifice erecting is of brick, four stories high, and 36 by 100 feet in its dimensions. It is situated near the grounds of the whaling company, not many rods from the river, and will derive its water power from the

Fallkill. The builders are now engaged upon the fourth story; and executed orders from Europe will return by the time the building is completed, and the machinery adjusted for operation. Since the exhibition of his machinery in Washington last winter, Mr Gay has perfected a power loom for the weaving of silk—the first and only one in the world. Such a machine has long been a desideratum; and that it has been attained we have the positive evidence of a piece of silk, of beautiful texture, before our eyes, wove by Mr Gay.

The gathering of the leaves of the mulberry, and the whole process of rearing and feeding the worms, and taking care of them until the production of the cocoons, will of course devolve upon the females and children of the county. Nor will this branch of business interfere with the other labors of a farm, or diminish its ordinary products. The planting and rearing of the mulberry trees, will require no more labor or attention than a fruit orchard; and as with fruit trees, the ground can be simultaneously tilled for other crops. All the silk, therefore, that can be produced, will form so much clear increase to the farmer's income.

NEGLECT OF THE MULBERRY.—We regret to discover the manifestation of a disposition, in many places, to neglect the cultivation of the white mulberry. There is no doubt the foliage of the Chinese mulberry is altogether superior to that of the white, and that the tree is to be preferred, on all accounts, provided it will endure the severity of the climate. That this will ultimately be the case by acclimation, we hope and believe; but we can not say that we are without our fears. The extensive destruction of the Chinese mulberry the last winter, we do not consider as deciding the question against its ability to withstand our ordinary winters. The last winter was uncommonly severe, and many of our most hardy indigenous trees and shrubs were destroyed root and branch. But notwithstanding the extreme cold, some of this variety of the mulberry survived it even in locations peculiarly unfavorable. We hope, therefore, it will finally succeed; but it is a dictate of common sense not to exchange certainties for uncertainties. We know from the experience of half a century, that the white mulberry is adapted to our climate, and that from its foliage silk of an excellent quality and liberal product may be made, and it is certainly the dictate both of wisdom and economy, to hold it in reserve should the Chinese fail.

Our plan, as practical culturists, is to multiply the white mulberry as fast as possible, and at the same time endeavor to acclimate the Chinese. Should we succeed, and render our white mulberries unnecessary for foliage, they will still be valuable for timber and fuel. But, on the contra-

ry, should we be disappointed in our hopes and expectations with respect to the Chinese, we shall still be enabled to prosecute the culture of silk with success and profit. We hope, therefore, the most sanguine believer in the Chinese variety will not neglect to cultivate the white, until the question is settled beyond the possibility of a doubt. It appears to us that the success of the whole enterprise would be jeopardized by any other course of procedure; and as we ardently desire its success, we would earnestly entreat our fellow culturists to guard against such a result.

THE MORUS ALBA, OR WHITE ITALIAN MULBERRY.—The Baltimore Farmer and Gardener states, that 'in order to make assurance doubly sure, he would recommend to persons who have sown seed of this tree, the present season, to cover their plant beds as soon as winter sets in, either with straw or long stable manure, to be confined by a slight covering of small brush-wood, which should be permitted to remain on the beds until about the middle of April, when it should be gradually removed, so as not to expose the plants too suddenly to the changes of the weather at that unsettled season of the year. This precaution will not be necessary after the first winter.' The seed of this mulberry may be had of Robert Sinclair, Jr. in Baltimore, which the editors of the F. and G. recommend 'as being fresh, having seen some of it tried, and sprouted in about 36 hours.'
Hampshire Gazette.

PROFITS OF THE MULBERRY.—A gentleman in New York, who has devoted much time and attention to the planting of mulberry trees, gives a statement from two acres, which divided, will give the following for one acre.

One acre of ground fenced by mulberry hedges and set out with trees, . . .	\$250 00
Interest and additional expense during five years,	187 50
	\$437 50

The acre will then produce—

From 5 to 10 years, 10 per cent.

“ 10 to 15 “ 47 “

“ 15 to 20 “ 112 “

averaging nearly 45 per cent. for the first 20 years, and continue at 112 per cent. afterwards. The culture of silk is becoming so profitable that it would seem advantageous for farmers generally, to give it their attention.—*N. Bed. Gaz.*

The spirits of turpentine applied to milkweed, burdock and Canada thistle, the quantity of a teaspoonful at a time, will run down and destroy them to the ground; if not at once, repeat it.

MORUS MULTICAULIS.—It has been a question among culturists whether this plant was a distinct species of the Mulberry, or only a variety of the White. In regard to the Multicaulis introduced here by Mr Whitmarsh, and of course most in the country, it is found by him that the seed does not produce the like plant, but an inferior one, more resembling the common White Mulberry. This favors the opinion of the French culturists that it is a variety merely. Of course growers cannot trust to the seed, but must propagate by layers, cuttings, grafts, and transplanting. On the other hand, it is confidently said that the seed imported last year from China as the *Morus Multicaulis*, and extensively distributed, by Dr Stebbins, is a distinct species and may be raised from the seed, and is undoubtedly far superior to the common white, if not the genuine Multicaulis. All the plants of the Multicaulis now existing in this country or in Europe, were propagated from two plants which originally were purchased by a French botanist, at the Phillipine Islands, were they were introduced from China. On his passage homeward he found that they were very easily multiplied by cuttings, and on his arrival had great numbers for distribution.—*Hampshire Gazette*.

Mr John Lombe, and the Silk-Throwing Machinery at Derby.

The Lombes were originally manufacturers at Norwich, but removed to London, and became silk throwsters and merchants there. There were three brothers, Thomas, Henry, and John; the first was one of the sheriffs of London at the accession of George II. in 1727, on which occasion, according to custom, the chief magistrate was created a baronet, and Mr Lombe was knighted. The second brother, who was of a melancholy temperament, put an end to his existence before those plans were developed which connected the name of Lombe with one of the most important manufactures of the country.

The Messrs Lombes had a house at Leghorn, under the firm of Glover and Unwin, who were their agents for purchasing the raw silk which the Italian peasantry sold at their markets and fairs to the merchants and factors. There were many other English houses at Leghorn, Turin, Ancona, and other parts of Italy, chiefly for exporting silk to England, in part return for which numerous cargoes of salt fish were and still are received from our ports for the consumption of the Italians during their Lent and other fasts. It was at that time customary for the English merchants engaged in the Italian trade to send their apprentices and sons to the Italian ports, to complete their mercantile education, by acquainting themselves on the spot with the details of their peculiar line of business. It was professedly in compliance with this

custom, but with a deeper ulterior view, that the youngest of the brothers, Mr John Lombe, who at that time was little more than twenty years of age, proceeded to Leghorn in the year 1715.

The Italians had at that time become so much superior to the English in the art of throwing silk, in consequence of a new invention, that it was impossible for the latter to bring the article into the market on equal terms. This state of the trade induced the Lombes to consider by what means they might secure the same advantage which their improved machinery gave to the Italians; and the real view of the younger brother, in proceeding to Italy, was to endeavor to obtain such an acquaintance with the machinery as might enable him to introduce it into this country. The difficulties in the way of this undertaking were very great, and would have appeared insurmountable to any but a person of extraordinary courage and perseverance. We find these difficulties thus stated in the paper which Sir Thomas Lombe printed for distribution among the members when he applied to Parliament for the renewal of his patent. One at least of these printed papers has been preserved, and has been lent us for the present occasion. It is there said, that "the Italians having, by the most judicious and proper rules and regulations, advanced and supported the credit of the manufacture, have also, by the most severe laws, preserved the mystery among themselves for a great number of years, to their inestimable advantage. As, for instance, the punishment prescribed by one of their laws for those who discover, or attempt to discover, any thing relating to this art, is death, with the forfeiture of all their goods, and to be afterwards painted on the outside of the prison walls, hanging to the gallows by one foot, with an inscription denoting the name and crime of the person; there to be continued for a perpetual mark of infamy."

The young Lombe, however, was not to be deterred by the danger and difficulty of the enterprise. On his arrival, and before he became known in the country, he went, accompanied by a friend, to see the Italian silk works. This was permitted under very rigid limitations. No person was admitted except when the machinery was in action, and even then he was hurried through the rooms with the most jealous precaution. The celerity of the machinery rendered it impossible for Mr Lombe to comprehend all the dependencies and first springs of so extensive and complicated a work. He went with different persons in various habits, as a gentleman, a priest, or a lady, and he was very generous with his money; but he could never find an opportunity of seeing the machinery put in motion, or of giving to it that careful attention which his object required. Despairing of obtaining adequate information from such

cursorily inspection as he was thus enabled to give, he bethought himself of associating with the clergy, and being a man of letters, he succeeded in ingratiating himself with the priest who confessed the family to which the works belonged. He seems to have opened his plans, partly at least, to this person, and it is certain that he found means to obtain his co-operation. According to the scheme which they planned between them, Mr Lombe disguised himself as a poor youth in want of employment. The priest then introduced him to the directors of the works, and gave him a good character for honesty and diligence, and described him as inured to greater hardships than might be expected from his appearance. He was accordingly engaged as a fillet-boy, to superintend a spinning engine so called. His mean appearance procured him accommodation in the place which his design made the most acceptable to him, — the mill. While others slept, he was awake, and diligently employed in his arduous and dangerous undertaking. He had possessed himself of a dark lantern, tinder box, wax candles, and a case of mathematical instruments: in the day time these were secreted in the hole under the stairs where he used to sleep; and no person ever indicated the least curiosity to ascertain the possessions of so mean a lad. He thus went on making drawings of every part of this grand and useful machinery; the priest often inquired after his poor boy at the works, and through his agency Lombe conveyed his drawings to Glover and Unwin; with them models were made from the drawings, and despatched to England piecemeal in bales of silk. These originals are still, we believe, preserved in the Derby mills.

After Lombe had completed his design, he still remained at the mill, waiting until an English ship should be on the point of sailing for England. When this happened, he left the works and hastened on board. But meanwhile his absence had occasioned suspicion, and an Italian brig was despatched in pursuit; but the English vessel happily proved the better sailer of the two, and escaped. It is said that the priest was put to the torture; but the correspondent of the "Gentleman's Magazine," to which we are indebted for most of the facts we have stated, says that after Mr Lombe's return to England, an Italian priest was much in his company; and he is of opinion that this was either the priest in question, or at least another confederate in the same affair. Mr Lombe also brought over with him two natives accustomed to the manufacture, for the sake of introducing which he had incurred so much hazard.

After his return, Mr John Lombe appears to have actively exerted himself in forwarding the works undertaken by him and his brother, Sir Thomas, at Derby; but he did not live to witness

their completion. He died on the premises, on the 16th of November, 1722, in the 29th year of his age. The common account of his death is, that the Italians, exasperated at the injury done to their trade, sent over to England an artful woman, who associated with the parties in the character of a friend; and having gained over one of the natives who originally accompanied Mr Lombe, administered a poison to him of which he ultimately died.

We recur to Sir Thomas Lombe's statement, already quoted, for the most authentic particulars respecting the progress of the work. The document itself is entitled, "A Brief State of the Case relating to the Machine erected at Derby, for making Italian Organzine Silk, which was discovered and brought into England, with the utmost difficulty and hazard, and at the sole expense of Sir Thomas Lombe." It commences with stating the capabilities of the machine. "This machine performs the work of making Italian organzine silk, which is a manufacture made out of fine raw silk, by reducing it to a hard twisted, fine, and even thread. This silk makes the warp, and is absolutely necessary to mix with and cover the Turkey and other coarser silks thrown here, which are used for shute; so that without a constant supply of this fine Italian organzine silk, very little of the said Turkey and other silks could be used, nor could the silk-weaving trade be carried on in England. This Italian organzine (or thrown) silk has in all times past been bought with our money, ready made (or worked) in Italy, for want of the art of making it here; whereas now, by working it ourselves out of fine Italian raw silk, the nation saves nearly one-third part; and by what we make out of fine China raw silk, above one-half of the price we pay for it ready worked in Italy." The paper goes on to state, that "the machine at Derby has 97,746 wheels, movements, and individual parts, (which work day and night,) all which receive their motion from one large water wheel, and are governed by one regulator; and it employs 300 persons to attend and supply it with work." After stating the difficulties which had been surmounted in introducing this improvement, the paper thus concludes: "Upon the introduction of which [this improvement], his late most gracious Majesty granted a patent to the said Sir Thomas Lombe, for the sole making and use of the said engines in England, for the term of fourteen years. Upon which he set about the work and raised a large pile of building upon the river Derwent at Derby, and therein erected the said machine; but before the whole could be completed several years of the said term were expired. Then the King of Sardinia, in whose country we buy the greater part of our supply of organzine silk, being informed of his success, prohibited the

exportation of Piedmontese raw silk; so that before the said Sir Thomas Lombe could provide a full supply of other raw silk proper for his purpose, a ter his engine, train up a sufficient number of work-folk, and bring the manufacture to perfection, almost the whole of the said fourteen years were run out. Therefore, as he has not hitherto received the intended benefit of the afore-said patent, and in consideration of the extraordinary nature of his undertaking, the very great expense, hazard, and difficulty, he has undergone, as well as the advantage he has hereby procured to the nation at his own expense, the said Sir Thomas Lombe humbly hopes the parliament will grant him a further term for the sole making and using his engines, or such other recompense as in their great wisdom shall seem meet."

The Parliament considering the matter of much public importance, thought it best to give him a grant of £14,000, on condition that the invention should be thrown open to the trade, and that a model of the machine should be deposited in the Tower of London for public inspection.

MORUS MULTICAULIS.

JOSEPH DAVENPORT, of Colerain, Mass. offers for sale 16,000 trees of the *Morus Multicaulis*, or Chinese Mulberry, being a part of his trees cultivated at Colerain and at Suffield, Ct., 16 miles north of Hartford, o.e. mile from the river. The trees are from 2 to 5 feet high. Price according to size, from 25 to 30 dollars per hundred. Were propagated from trees that endured the last severe winter unprotected. Purchasers will be furnished with a knowledge of its culture and suitable soil, which, if attended to will ensure it without protection against the severity of our climate. Trees will be carefully packed and forwarded by land or water to any part of the country. Orders received by mail will receive prompt attention. Colerain, Oct. 5, 1835.

CHOICE DOUBLE LARKSPUR SEED.

For sale in packages of 12½ cts. each, the most beautiful *Delphinium ajacis fl. pleno*, ever flowered in this country, the trusses of flowers are above a foot in length on a stately stem of near three feet, are as double as roses, in fact they more resemble Hyacinths and combine every shade of color. Seed flowers better than is sown in the fall.

GEO. C. BARRETT.

LUSTRE FLOWER POTS.

For sale at the New England Farmer Office, beautiful Super Flower Pots.

BREMEN GEESSE.

For sale at the Agricultural Warehouse Bremen Geese and Muscovy Ducks.

GEO. C. BARRETT.

GARDEN SEEDS, TREES, &c.

The subscriber is daily receiving a supply of *Garden Seeds*, growth of 1835, and will execute orders from the South at short notice, for SEEDS of the greatest variety, raised in gardens connected with the *Agricultural Warehouse and New England Seed Store*, Boston, and warranted of good quality.

BOXES OF GARDEN SEEDS containing an assortment neatly papered up in 6½ cent papers supplied at a discount to Traders, also FRUIT AND ORNAMENTAL TREES, MULBERRY AND MORUS MULTICAULIS TREES.

Agricultural and Horticultural Books, New England Farmer (weekly a \$2.50 per annum), Silk Manual (monthly at 50 cts. per annum), Horticultural Register at \$2 per annum, published by

GEO. C. BARRETT,

sep. 9. 1835.

Boston.

MORUS MULTICAULIS.

For sale at the Agricultural Warehouse, 51 and 52 North Market street, any number of Trees of the *Morus Multicaulis* or Chinese Mulberry. These trees were propagated in this country. The superiority of the foliage of this tree as food for the silk-worm over all other, has repeatedly been tested, and is proved beyond a doubt. The price for Trees, from 4 to 5 feet high, is \$30 per hundred, \$4.50 per dozen, &c. 50c single. Trees but 2 or 3, with good roots \$25 per hundred.

GEO. C. BARRETT,
New England Farmer Office.

VALUABLE NEW WORK ON SILK.

American Silk Grower's Guide, is this day published at the office of the New England Farmer—being the art of growing the Mulberry and manufacture of Silk on the system of successive crops each season—by Wm. KENRICK, author of the *New American Orchardist*; 112 pp. price 42 cents, neatly bound in cloth. Booksellers and traders supplied on favorable terms.

GEO. C. BARRETT.

SPLENDID DUTCH BULBOUS ROOTS.

Just received from Holland a splendid collection of Bulbous Roots consisting of Hyacinths, Polyanthus, Narcissus, Crown Imperials, Gladiolus, Tulips, &c. &c.

Next week a Catalogue will be printed and the present is a rare opportunity for Florists to add superior varieties of Bulbous Flower Roots to their collection.

GEO. C. BARRETT.

New England Farmer Office.

SPLENDID BULBOUS ROOTS.

Just received at the New England Seed Store, an assortment of Bulbous Roots, comprising the finest varieties of Tulips, splendid variegated red, yellow and mixed, with the colors marked on each.

Hyacinths. Double and single, a fine assortment, with the colors marked on each. Also an assortment of fine double and single Hyacinths mixed without names.

Polyanthus Narcissus. Fragrant white with single cups, and extra sized roots.

We shall open in a few days a further supply of fine Bulbous Roots from Holland, among which will be bulbs of every kind and color, which will complete a superb assortment.

SCILLA PERUVIANA, a rare bulb, from the Archipelago; produces a splendid flower may be grown in pots or in the garden, perfectly hardy. Prices—50 cts. 25 cts and 12½ cts. according to size.

TULIPS, a large and splendid collection, growing in the Horticultural Gardens connected with the New England Seed Store.

sep. 2.

GRASS SEEDS.

30 Casks Clover Seeds—prime quality, 10 do. Timothy; 100 Bushels Red Top; 500 lbs. White Clover.

For sale by
GEO. C. BARRETT,
New England Seed Store.

AGRICULTURAL CHEMISTRY.

Chaptals Agricultural Chemistry, first American Edition, from the French. Just published, price \$1.25.

sep. 9. GEO. C. BARRETT.

WHITE MULBERRY SEED, Growth of 1835.

Just received 50 lbs. of White Mulberry Seed growth of 1835, saved with much care from good, thrifty trees, expressly for the New England Seed Store. For sale by

GEO. C. BARRETT.

N. B.—As the quantity will probably be inadequate for the demand the next season orders should be sent early.

July 29.

FARM FOR SALE OR EXCHANGE.

An excellent Farm containing 70 acres, situated in Marlborough, Mass., with a house and barn thereon, for sale, or would be exchanged for property in the city of Boston. For terms and particulars inquire of G. C. BARRETT at this office, or N. B. PROCTOR, Esq. of said Marlborough. 6m

SILK MANUAL.

BRIGHTON MARKET,—MONDAY, Oct. 5, 1835.

Reported for the Daily Advertiser & Patriot.

At Market, 5250 Cattle, (say 3600 Beef Cattle and 1650 Sores, 4000 Sheep, and 370 Swine.

PRICES—Beef Cattle—Prices have further declined. A few yokes extra taken at 31s 6d; prime 29s a 30s; good 25s 6d a 28; two and three year old 16s 6d a 21s

Barrelling Cattle.—Dull. More were at market than we recollect ever seeing before at one time; they have also come too early. The barrellers offer for Mess 22s 6d, No 1 19s 6d, No 2 16s 6; but the drovers refuse to také less than 24s for Mess, 21s for No 1, and 18s for No 2. A large proportion remain unsold.

Stores.—Dull. Yearlings \$5 a 6 50; two year old 9 a 14; three year old 15 a 23.

Sheep.—Ordinary at 10s, and 11s; middling 11s 6d, 12s, and 13s; better qualities 14s, 15s, 16s 6d, and 17s.

Swine.—No old at market. Several lots of Shoats were taken at 4¼ for Sows, and 5¼ for Barrows; at retail, 5 for Sows and 6 for Barrows.

GARDENER WANTED.

At Nahant; for a man and his wife, for whom a separate cottage will be found, and the milk of a cow &c. The wife wanted to do washing of the family of the employer. Apply at 4 Pearl Street. 3t*

MORUS MULTICAULIS.

FRUIT AND ORNAMENTAL TREES.

NURSERY OF WILLIAM KENRICK, Nonantum Hill in NEWTON, near Boston, and near the Worcester Rail Road. Selections of the finest varieties of New Flemish Pears,—also Apples, Cherries, Peaches, Plums, Nectarins, Almonds, Apricots, Grape Vines, Currants, Rasberries, fine imported Lancashire Gooseberries, Strawberries, &c.—

MORUS MULTICAULIS, or Chinese Mulberry, by the single tree, the 100 or 1000—and Plantations for silk furnished at the reduced prices and reasonable rates.

12,000 Peach Trees of finest select kinds are now ready for sale.

Ornamental Trees and Shrubs, and Roses of about 1000 finest kinds,—Also Herbaceous flowering plants, Pæonies and splendid Double Dahlias.

The excellence of the varieties, the quality, the size, continually improve as the numbers are augmented. These now comprise nearly 400,000—covering compactly about 20 acres.

All orders left with **GEO. C. BARRETT**, who is Agent, at his Seed Store and the Agricultural Warehouse and Repository, Nos. 51 & 52, North Market street, will be in lik manner duly attended to.—Catalogues gratis, on application.

New England Farmer's Almanac For 1836.

Just published by **JOHN ALLEN, & CO.** Corner of Washington and School streets, up stairs, and by **GEO. C. BARRETT** at the Seed Store No. 51 and 52, North Market Street, **FESSENDEN'S NEW ENGLAND FARMER'S ALMANAC** for 1836. For sale also by Booksellers, Shopkeepers, &c., generally.

This Almanac will be found one of the most interesting and amusing of the series, of which it composes No VIII. It consists of the usual astronomical calculations, humorous poetical sketches of the months; observations and directions relative to the employment of the Farmer, which will be found appropriate to each month in the circle of the seasons. "*Agriculture and Rural Economy*," including cuts and descriptions of many of the most useful implements employed in tillage. Valuable Recipes; Husbandry Honorable, a pithy piece of paramount poetry. The Splendors of the Setting Sun, a poetical effusion; Aphorisms; Eulogy on the *Art of Agriculture*; Calendar of Courts, Roads, Distances, &c, &c.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES, new,	barrel	2 50	3 00
BEANS, white,	bushel	1 87	2 00
BEEF, mess, (new)	barrel	12 50	13 00
Cargo, No. 1.	"	11	11 50
prime,	"		
BEEFWAX, (American)	pound	22	24
BUTTER inspected, No. 1,	"	16	20
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	46	50
southern, geese,	"	42	44
FLAX, American,	"	9	10
FLAXSEED,	bushel	1 25	1 37
FLOUR, Genesee, cash	barrel	6 25	6 73
Baltimore, Howard street,	"	6 37	6 62
Baltimore, wharf,	"	6 75	6 87
Alexandria,	"	6 12	1 25
GRAIN, Corn, northern yellow	bushel	1 00	1 04
southern yellow	"	90	95
white,	"	95	95
Rye, northern, none.	"	95	1 00
Barley,	"		
Oats, nor hern, . . . (prime)	"	60	62
HAY, best English, per ton of 2000 lbs		22 00	25 00
eastern srewed,	"	16 00	17 00
hard pressed,	"	17 00	20 00
HONEY, new,	gallon	37	42
HOPS, 1st quality new	pound	16	18
2d quality	"		
LARD, Boston, 1st sort,	"	11	12
southern, 1st sort,	"	9	10
LEATHER, slaughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	19	21
do. upper,	"	18	20
Philadelphia, sole,	"	27	29
Mulberry, sole,	"	25	27
LIME, best sort,	cask	1 05	1 08
PORK, Mass. inspect. extra clear,	barrel	20 50	21 00
Navy, mess,	"	16 00	16 50
bone, middlings,	"		
SEEDS, Herd's Grass,	bushel	2 25	2 50
Red Top,	"	70	80
Red Clover, northern,	pound	9	11
White Dutch Honeysuckle,	"	25	03
SILK COCOONS, (American)	bushel	2 75	3 00
TALLOW, tried,	cwt.	7 50	8 00
WOOL, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	65
do. 3-lths do.	"	50	55
do. 1-2 do.	"	37	42
do. 1-4 and common	"	40	45
Native washed	"	38	60
Northern pulled, { Pulled superfine,	"	55	60
{ 1st Lambs,	"	45	50
{ 2d do.	"	53	38
{ 3d do.	"	25	30
{ 1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

		RETAIL PRICES.	
HAMS, northern,	pound	12	13
southern, none.	"	11	12
PORK, whole hogs,	"	6½	6½
POULTRY,	"	12	15
BUTTER, (tub)	"	18	20
lump	"	22	25
EGGS,	dozen	18	20
POTATOES, new,	bushel	50	75
CIDER, new,	barrel	2 50	3 00

ORDERS FOR PRINTING RECEIVED BY THE PUBLISHER.

FESSENDEN'S
SILK MANUAL
 AND
PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I.

BOSTON, NOVEMBER, 1835.

NO. 7.

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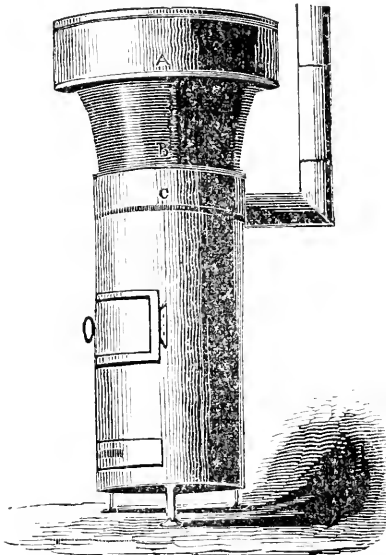
T. G. FESSENDEN—EDITOR.

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BOSTON, NOVEMBER, 1835.

**FACTS AND OBSERVATIONS RELATIVE TO
 THE CULTURE OF SILK.**



HEATING COCOONS FOR REELING SILK.

In the last number of our Silk Manual, page 82, we gave a brief notice of an apparatus, invented by the Editor, for the purpose of heating cocoons for reeling silk; and promised a more definite description of our invention in a succeeding number. We now proceed to redeem our pledge.

A. in the cut, represents a vessel which may

be made of tin, copper, or other suitable material.* The top, or visible part is about five and a half inches high, and sixteen inches in diameter. Its bottom is closed, in part, by a plate of the same metal, turning horizontally inwards, so as to form a shoulder, which rests on the upper edge of the boiler *B.* This plate is perforated by a circular hole, about ten and a half inches in diameter, and a short open cylinder of two inches in length, is soldered to the edge of the hole or perforation above-mentioned. The lower edge of this short cylinder rests in a shallow, horizontal groove in the interior of the boiler, about two inches below its top, or upper extremity. This groove, as soon as the water is made to boil, is filled with water of condensed steam, which effectually prevents the escape of steam from the boiler before it is conducted up the sides of the cylinders, above described, and the little steam, which is not condensed on its passage by said cylinders, and a vessel which contains the cocoons, to be hereafter described, escapes from the edge of the upper cylinder.

The cocoon-heater, or vessel containing the water for heating the cocoons is a short cylinder placed within that which has been described, and is not shown in the above cut, closed at the bottom, and resting on the edge of the exterior vessel or steamer, by a rim or flange. About a quarter of an inch of space is left between the steamer and the cocoon-heater, for the purpose of admitting steam from the boiler to heat the vessel containing the cocoons. The cylinder in which the cocoons are heated is divided into four parts by tin partitions, which cross each other at right

* In warm weather, or whenever warming the apartment is not desired, this vessel may be of wood, lined inside.

angles near the centre of the cylinder. The partitions are perforated by small holes, which admit water from each to the other, but keep different parcels of the cocoons separate, which is said to be necessary in reeling.

The lower part of the boiler *B*, which is of cast iron, is let into the cylinder *C*, resting on a flange or shoulder, and extending downwards to the top of the door by which fuel is admitted. The cylinder, fire pot, ash pit, and stove pipe have nothing peculiar in their construction, except that there is more perpendicular space above the fire door than usual, for the purpose of affording room for the boiler. For further observations on this apparatus, and notices of its advantages, we would refer to the *Silk Manual* for the last month, page 82.

This apparatus has been used by Mr Cobb, author of *Cobb's Silk Manual*, who has favored us with the following :

I have used Mr Thomas G. Fessenden's Patent Steam Boiler for heating the water in reeling silk, and find it both economical and useful. The water in which the cocoons are, is kept equable by means of the application of steam to the basin, and there is a considerable saving of labor and fuel by the apparatus.

J. H. COBB.

Dedham, July 12th, 1835.

The apparatus may also be usefully applied in killing the chrysalis in the cocoons, and also for drying cocoons before bringing them to market as will be apparent from the following communication from the pen of Mr Adam Brooks, inventor of Brooks' Patent Silk Spinner.

[For the *Silk Manual*.]

The disappointment that many have met with by not knowing that cocoons must be dried before they are packed away for spinning, induces me to write a few lines on the subject. Some of my acquaintance have recently lost a number of bushels; others small quantities. I was informed in Connecticut that one man lost thirty bushels, and many have written to me for information, that a few observations which I have ever found necessary to be attended to, in order to insure success, cannot be unwelcome. Let the cocoons be baked, care being taken not to have the oven too

hot, or stifling them is preferable, as then they cannot be hurt by burning.

Thomas G. Fessenden, Editor of the *New England Farmer*, has an apparatus for warming rooms, which has been advertised in that most useful paper. This will be found a convenience indeed for killing the chrysalis, as well as useful for many other purposes, having a pan* affixed to it to heat by boiling water, which is exactly what we want for killing the moth. Let them be heated in this pan about half an hour; when they are warm, put into the pan a very little camphorated spirits, and they may be kept for years, and no insect will injure them. When they are taken out, spread them on a cloth, or smooth boards; if it is damp weather and you have a large parcel, spread them thin in an open room, and stir them about as often as once a day, or the under side will mould and spoil the silk; or they may be dried in the same pan that the chrysalis is killed in, if we dry a few at a time. If we have a clear sun, it is a better way to lay them in the sun and dry them until they feel light and rattle by shaking; then, and not until then, is it safe to pack them away for spinning or for market.

The stove above alluded to, is also a most convenient apparatus for spinning the silk, there is a pan with it, made for that purpose, set into another pan of water,† that the water the cocoons are in never boils, but may be kept of the right temperature for spinning. With this necessary apparatus, and Brooks' Patent Silk Spinner I could insure success with but a little practical experience.

A. BROOKS.

In conversation with the Editor, Mr Brooks suggested that some cocoons wind the better for being immersed, for a short time in boiling water, before attempting to reel off the silk; and then placing them, during the process of reeling in water of a somewhat lower temperature. This can easily and readily be effected by taking off the steamer *A*, together with the cocoon-heater, raising the temperature of the water in the cast iron boiler *B*, to a boiling heat, and immersing

* This pan is the vessel described above as the cocoon heater.

† Or rather over a boiler, and heated by steam.

the cocoons, for a short time in the boiling water, and then placing them in the steam heated water for winding.

Rush's Silk Manual observes, that "The temperature of the water is to be regulated, 1st by the nature of the silk, resulting in part, from the quality of the food on which the silk-caterpillars have been fed. This is exemplified in a striking manner by a fact recorded by Aldini, which is, that in Piedmont and in Lombardy, the gummy cement of the cocoons is so easily soluble as to require the water to be heated only to 60° or 66° of Reaumur (165° or 181° of Fahrenheit,) while the cocoons spun in the south of Italy, and particularly in the Papal territories, require a heat of 80° of R. (212 of F.) owing to the greater tenacity and solidity of the gum. Experiments can alone, therefore, determine the various degrees of heat requisite for the water in different places, and for several varieties of cocoons, and even for different parcels of cocoons of the same sort. As this is a point connected with the success of the operation, it affords another argument for the use of the thermometer, in order to ensure it, and to prevent the delay and trouble which will ever ensue from guessing at the heat of the water, by dipping the finger in it. Our own sensations are very inaccurate tests of the heat of water; the use of the thermometer, besides saving much time and trouble to the spinner, will ensure an evenness of thread, and perfection in the whole operation."

Dr Lardner observes that, "it is considered essential to the production of good silk, that the thread should have lost part of its heat and adhesiveness before it touches the bar of the reel. For this reason the Piedmontese reelers are obliged by law to allow a distance of three feet between the guides and the centre of the reel." This, as well as many other apparently insignificant matters, is, no doubt, indispensable to success in reeling; and the manufacturer must be "*great in little things*" or he will not be successful in the great objects connected with his pursuits.

For Fessenden's Silk Manual.

MR EDITOR — Having embarked in the silk culture, and being desirous that others should do the same, I am pleased to see the public press wielding a portion of its energies in the service

of this enterprise. And what is attempted in the way, I shall wish, by all means, to see, not only prompted by zeal, but undertaken with prudence and judgment. This branch of agricultural industry is, at present, in an early stage of experiment, in this country, at least in most parts of it. Few have had much opportunity to acquire knowledge by their own experience; and, consequently, few are qualified to be teachers, or to impart valuable information to enlighten and guide the cultivator, or to awaken and direct attention upon this important subject. Not a few, however, seem ambitious to lend a helping hand, by publishing the result of their speculations, and sometimes stating observations and opinions ostensibly grounded on known facts. Much, however, of this character, and presented in this form, needs revision. I have, myself, for about six years past, been in the habit of consulting books, reading newspapers and periodicals, and what I esteem vastly better than all the rest, gleanings something from personal experience, for the purpose of getting an understanding of the art of rearing the silk-worm and ascertaining its profits. And I do not now, Mr Editor, sit down to pen this short article with any high pretensions, to palm myself upon your readers as a man qualified to teach them, to guide them to all the knowledge that is important to practice. My object is rather to guard against mistakes, to warn men not to receive as canonical, all the high-toned and extravagant representations of enthusiasts, who, I doubt not, esteem themselves public benefactors in proportion to the exalted terms in which they paint the prospect of all silk cultivators. My motive is derived from a belief, that sober facts, precisely reported, and well authenticated, are ultimately of infinitely greater advantage to the cause they seek to advance, than all the highly colored and flattering encomiums enlisted into the service by volunteers, who have more warmth than light, and more valor than experience. When led to expect more than it is possible we should ever realize, our disappointment, when it comes, must necessarily produce a most disastrous effect upon the engagement, into which we were seduced, or conducted at least, by an inordinate estimate of its advantages.

I am induced to offer these suggestions in consequence of having often met with paragraphs which I *know* to be incorrect, and which it seems to me, tend to mislead those, who would rather be enlightened than deceived upon this highly interesting practical subject. A few days since I read in the Transcript, from a correspondent of that paper, some remarks dated at Ashfield, in my own County, respecting the high condition to which silk cultivation had already risen in Northampton. I impute nothing intentional to the writer, whoever he may have been, but I will venture to say, that had he been a man of any knowledge concerning what he wrote, resting on his own experience, he would not have amused us with so fine, so splendid a picture. I, myself, have, since the first of June last, been twice on the same ground, which lit up such a glow of imagination in the mind of this traveller and journalist, and have found nothing to warrant his views. It is true there is, on the premises of Mr Whitmarsh, the beginning and foundation of a great silk establishment, which, in process of time, will, I doubt not, produce great results. But to say that even now there is provision for rearing "one or two millions of silk-worms," on that ground, as promising as it is, can be no other than extravagant and idle in the extreme. Nay, I seriously doubt whether, in the whole state of Massachusetts, their have been mulberry leaves enough, the season past, to yield one half as much silk as has been often, and by many, stated as coming within the capability of that single town. Now, such over statements and unauthorized estimates, made unquestionably, in simplicity and with the most laudable views, have no tendency to accelerate, but to retard, the progress of that enterprise, which is eventually, as I believe, to convert New England into a great and prosperous silk-growing district. What has been commenced in Northampton, as already referred to, may be regarded as a prelude to something very considerable, being, as it is, in the hands of a gentleman who is persevering, and not likely to be broken down by the premature expenditure of some hundreds of dollars in the erection of accommodations, which, I am confident, cannot be more than partially needed for many years to come.

The way in which this business is most likely to succeed, and be a source of profit, is in a speedy commencement and a steady, gradual progress, by sowing seed, or otherwise procuring trees, for supplying food for worms, and when, in the course of two or three years, foliage shall have grown in some quantity, begin to feed them out on a moderate scale, increasing from year to year, as trees grow, and experimental knowledge strengthens confidence, and renders more easy and sure the process by which the end is to be attained. Daring adventurers may launch forth at once upon a wide ocean of untried and uncertain effort, expecting to reap an abundant, overflowing harvest almost as soon as the seed is sown; but, in this case, the mortification and discouragement attendant on disappointment is more probable than the gain fondly anticipated. For the present, I would say to the agricultural community disposed to make trial of silk-growing, first provide trees, as largely as you choose; and when they have leaves, begin to use them with due caution not to be overstocked, not to have more mouths than you can fill, not to crowd your thoughts, or your hurdles, with millions, when you have scarcely wherewith to sustain thousands.

The chief hazards in this novel and much talked of branch of rural industry are, I imagine, in the outside, before opportunity has been had for making up a well-formed and ripened judgment as to the proper mode of managing the concern.

To avoid this difficulty, and to acquire skill for practice in the cheapest way, and to make a disposition the least likely to issue in failure and discouragement, cultivators, I think, will do well to act upon something like what is hinted in the above remarks, rather than take their impressions from what is said so often, so confidently, and in language so flattering, while experience neither attests, nor seals it.

With these remarks, Mr Editor, I declare to you and your readers my sincere desire of seeing your useful publication accomplishing much in the promotion of its object, and in prompting to that industry which it recommends.

Boston, Oct. 21, 1835.

J. FIELD.

To the Editor of the Silk Manual.

SIR—I am informed by those who have had experience in the cultivation of the mulberry tree, that it will not thrive on land where the surface or subsoil has a mixture of clay. Will you please to state in the next number of your valuable Manual, whether a calcareous soil or a soil composed in part of lime, would be suitable for a mulberry plantation; or whether lime applied to the land as manure, would be beneficial or injurious to the growth of the trees in any case. By so doing you will much oblige one of your subscribers, and perhaps, many others who are now interested in the culture of the mulberry.

Dedham, Oct. 30, 1835.

W. G.

By the Editor.—All the writers on the subject of cultivating mulberry trees, &c. concur in recommending a warm, sandy, dry soil, and do not mention the subject of lime, or calcareous matter as connected with growing the trees. Lime, however, according to Mr Edmund Ruffin, author of an able "Essay on calcareous Manures," is unfavorable to the growth of forest trees in general. We should be glad to learn the opinions of competent judges on this subject; but, at present, would not advise the use of calcareous manure, nor recommend a calcareous soil till the subject is better understood.

ON THE MORUS MULTICAULIS, OR CHINESE MULBERRY.

To the Editor of the Northampton Courier:

Dear Sir:—My object in this communication is, in part, to rectify some few errors in a statement of your highly respected correspondent, Dr S., which was inserted in your valuable and interesting journal for Sept. 30, ult. and which is now going the rounds of many of the public journals of the day.

The history of this Mulberry, and the account of its origin, has been often published and republished in this country, during the last five years, and its history disseminated far and wide; the history being, in a measure identified in its name and the country of its origin: that country is China.

The honor of the discovery of this plant, and its introduction to Europe, to Africa, and to America, is due to M. S. Perrottet, Agricultural Botanist, and Traveller of the Marine and Colonies of France. This distinguished Botanist was sent out by the Government of France on a voyage of research to the seas of Asia: a national ship having been provided especially for his use.

After an absence of about three years, and in 1822, he returned to France, bringing with him a vast collection of living plants, &c. "From the commencement of the present century," says a writer of that country in his letter to Dr Pascalis, and one who saw all, "there had never before been so vast an importation; one so extensive in number, for rare genera, and families or their seeds. * * * In this immense collection was the *Morus Multicaulis*, thus called by Perrottet, for the first time ascertained to be the real *Chinese Mulberry*, of which every silk grower and culturist should endeavor to multiply the species. It has been deposited in the Royal Garden." * * * *

It was in descending the river which traverses the city of Manilla, and on its banks, and in the garden of a Chinese cultivator, that M. Perrottet saw, for the first time, the *Morus Multicaulis*; it was there that he first found it, growing along with a vast variety of other precious plants, which had there been congregated from India, from Ceylon, from Sumatra, and from China.

The *Morus Multicaulis*, appears from the statements of M. Perrottet, to have originated "in the elevated regions of China, from whence it has been disseminated over all the plains near the sea shore. It was introduced into Manilla and all the Islands in the Asiatic Archipelago, from Canton, where it was only used for ornamenting gardens. The Chinese are entitled to the credit of this introduction, who, in emigrating from their country, have, from motives of industry, endeavored to multiply it, that they might render it useful to them in the new country of their adoption.

Again he says, "this species will be readily acclimated in Europe, because it originated from an analogous region, as to climate, to that which we inhabit. It appears not to suffer from the excessive cold of the Northern, or the intense heat of the intertropical regions" * * * Chinese inhabitants assured M. Perrottet, that to this tree are the disciples of Confucius indebted, for the prosperity and solidity of their empire.

In France, this tree is sometimes also called the *Perrottet Mulberry*; and M. Poiteau, one of the most distinguished writers of that country, has observed, that public gratitude and justice, require that the name of the zealous traveller should be affixed to the precious plant which has given him celebrity, and which he has given to Europe, to Africa, and to America, and which will contribute so much to the prosperity of French industry. In other publications he has also informed us, that, by the information received from all quarters, this mulberry had not suffered in the least in any part of France, during the most severe of their winters. Letters also of a late date, which I have received from M. Eyries of Havre, and also from the Chevalier Bodin of Paris; both of them the

most responsible as well as competent witnesses, are to the same effect.

Mr Editor, I add to this communication a still further account which I had very lately prepared for the second edition of the "Silk Grower's Guide"; the first edition of Sept. ult. being principally gone.

THE SILKWORM AND THE MULBERRY FROM CHINA.

Wherever the Mulberry finds a congenial climate and soil, there also the silk worm will flourish; such a climate and soil, and such a country is ours, throughout its whole extent, from its eastern to its western shores.

The silk worms, and the plants whereon they most delight to feed, are the natives of China: a country famous from antiquity for its silk, and renowned for its industry; a parallel only to our own, in its climates and divers latitudes. These, the *common White Mulberry*, which is sometimes, though improperly, called the Italian, and the *Morus Multicaulis*, all being alike the natives of the same country.

The *Morus Multicaulis* is also called, by way of excellence, the *Chinese Mulberry*; a tree of surpassing beauty; a new and most valuable variety for the nourishment of silk worms; a tree which is represented as possessing such decided superiority over all others, that it will speedily be substituted for them all in every region of the globe.

The tree grows vigorous, upright and beautiful; the leaves, in a dry and arid soil, are of less size and elliptical, their breadth being six inches, and their length eight; but in rich, friable and humid soils, they are large and cordiform, extraordinary specimens having sometimes measured more than a foot in breadth, and fifteen inches in length; they are invariably curled or convex on their upper surface, of a deep and beautiful shining green. A plant of the easiest culture, by grafting, by inoculating, by layers and by cutting, but we are assured *by no other mode*, as has been proved in France, in Lombardy, and in Venice, where the seeds sown have produced varieties, but *none like the true kind*. By the modes above-named only, and by these exclusively, as we are equally assured, have the Chinese reared this tree from time immemorial; this being a *variety*.

By these characteristics, is the true *Morus Multicaulis* distinguished, not only from the Dandolo mulberry, but also from another variety, which has been mistaken for this, and which I saw growing at Northampton, the seeds of which came from China. At first sight, I concluded they were the *Morettiana*, or Dandolo, a new species from Pavia, which, like these, has a large leaf, with a *plain surface*, but on examination I saw that they differed as much from this as they differ from the true kind.

It is sometimes called the *Morus Culcallata* — also the Perrottet mulberry, so called from M. Perrottet, agricultural botanist and traveller of the Marine and Colonies of France, who has introduced this plant to Europe. It was first discovered by him at Manilla, the capital of the Phillipine islands, whither it had been brought by the Chinese, as a tree of ornament, as well as of eminent usefulness. From Manilla the *Morus Multicaulis* was first introduced by M. Perrottet to the Isle of Bourbon, and finally it was brought by him to France in 1321, in that vast collection and variety of productions, which he had during thirtyfour months procured in the seas of Asia, or gathered on the coast, or in the lands of Guiana.

At a later period, it was sent from Cayenne to Martinique, and from France to Gaudaloupe; also to Senegal. The numerous plants which are already disseminated in the divers climates of Africa, America and Europe, have all been produced by the two individual plants, which were brought by M. Perrottet from Manilla.

The *Morus Multicaulis* differs from all others, in the uncommon vigor of its growth, and the facility with which it is propagated from layers, or even from cuttings; also, from the remarkable size which the thin, soft and tender leaves speedily acquire, and the promptitude with which they are renewed. The fruit, which was unknown even in France till 1830, is long, black, and of appearance sufficiently beautiful; its flavor good, being intermediate between that of the red and that of the black mulberry. The silk which the worms form, from the food afforded by this plant, is not only of superior quality, but the cocoons are of unusual size. The leaves, from their extraordinary dimensions, being gathered with important economy of labor, and of time, and from their superior nutritious qualities, they are preferred by the insects to all others.

This mulberry should be cultivated in hedge rows, and never suffered to rise higher than 7 or 8 feet. But a few years are sufficient to raise considerable fields of them in full vigor, sufficient to support an immense number of silk worms; and regular plantations can be formed, by planting the trees at the distance of from six to eight feet asunder; or in rows ten feet asunder, and the trees of five feet distance in the row; a space sufficient for the extension of the branches, sufficient also for cultivation, and for the greater convenience of gathering the leaves. So greatly is this last operation facilitated by the flexibility of the stalks, and the superior size of the leaf, that as we are assured by M. Perrottet, a child is sufficient for gathering the food for a large establishment of silk worms.

The *Morus Multicaulis*, since its introduction to France, seems destined to replace every where

the common white mulberry for the nourishment of silk worms; such is its decided superiority over all others.

The prediction of the late Dr Pascalis, in 1830, that "after the discovery of this plant, a doubt no longer exists, that two crops of silk may be produced in a single season"; this prediction has since been accomplished — its truth fulfilled by experiment — the soil and cultivation, the habitations for the successive generations of silk worms being yet the same, all thus converted to *double* use, and the production of a *two fold* harvest,— it will be obvious that the actual profit, thus augmented, must be manifold.

SOIL, SITUATION AND CLIMATE.

Although the mulberry flourishes most luxuriantly in a moist and rich soil, and protected situation, yet the leaves which are produced in such soils, are more crude, and not of a quality so nourishing. The growth of the tree in such soils and expositions, besides being more rapid, is prolonged to a later period in autumn, or until suddenly arrested by frost; and the immature wood of a forced growth being more tender, is consequently more liable to be killed by early frosts and winter. Such appears to have been the case in the winter of 1831, '2, which destroyed so many full grown orchards and trees of the hardiest description, even to the root. The ravages of that destructive winter, like that of our last, seem to have been confined to particular situations and soils — to the productions of the forced growth, of a summer not less uncommon and extraordinary.

This mulberry braves the most rigorous winters of France. Of this important fact we have indisputable testimony; even of the uncommonly severe winter of 1829, '30: it has there been acclimated, even to the extreme north, as far as Havre; and where it has been cultivated by M. Eyries, from its first introduction to that country.

We distinguish between trees and plants which grow in a state of nature, and those growing in a state of artificial cultivation. In a state of nature, and in the shade and protection of the forest, or of herbage, the growth of the young seedling tree, during the first year, is indeed slow, but the young plant finishes its growth for the year, and attains to a ligneous consistence, and the wood completely matures in *due season*.— While in a state of cultivation, the growth is prolonged, and the wood immature; it meets the frosts of autumn and of winter *unprepared*, and even the young seedling plants of the plum and pear, the quince and the cherry, whose growth has been by art forced on, must be, in our climate, by art protected on a naked and defenceless soil. The same protection, during the first winter, is alike required to the young plants of the Morus

Multicaulis, so valuable, the layers of but a single summer's growth, which are separated in autumn.

Even some of the hardiest trees of the forest, require protection in our climate, during the first winter, in a state of cultivation so opposed to nature; they find not in a highly cultivated and naked soil, that essentially necessary protection at the roots which they always find in their own native forests. The danger in this case becomes four-fold from these several causes combined.

The destruction to young and delicate trees and plants, which is sometimes occasioned by winter, is caused by the alternate freezing and thawing of the earth *at the surface*. The frost, by its expansive power, operating as a girdle by compression, death assails at the surface, and the top dies as a consequence. The bountiful covering of moss, and herbage; or leaves, with which provident nature clothes the earth, being amply sufficient to modify the growth of the plant, and to defend at the roots. This protection, like the fleecy snow, being two-fold; it defends alike from the blasts of sudden and excessive cold, also from the still more destructive and pernicious rays of the sun.

Since the introduction of the *Morus Multicaulis* to New England, in 1831, this tree has had to contend, even in its young and tender age, with two winters, such as were never before recorded in the memory of man, or in the annals of our country; winters doubly severe and destructive, and with augmented power to kill.

Yet, during the last winter, and where the thermometer had descended from 30 to 40° below 0, and in various parts of New England, and in situations the most bleak and exposed to cold winds, the *Morus Multicaulis*, the well established plants of three or four years of age, in suitable soils, have borne the trial, with power to withstand, defying the storms and the piercing cold, even such a winter as this.

Others there might be, those of younger growth, and those especially, which late in autumn had been transplanted to new positions — or, the forced trees of but a single summer's growth, defenceless, unprotected, and all exposed, on an unsuitable and naked soil, which the winter overcame; causing them to suffer even unto death, and to share the fate of those other trees, of other kinds and species, of a mature and hardy age, which the same dreadful winter had killed.

The proper soils for the Mulberry trees are '*dry, sandy, or stony*.' And trees growing on dry, sandy or stony soils, and situated on the open plains, and on hills the most exposed to cold winds, will be found to suffer least of all from the destructive frosts of autumn and of winter. With all authors, I must agree in recommending a soil of but moderate fertility; and least of all, a cold, moist and heavy soil, or even a very rich soil. A dry soil,

or a friable subsoil, on gentle elevations, or declivities, being the most suitable of all for the Mulberry from China.

WM. KENRICK.

Newton, Mass., Oct. 6, 1835.

[For Fessenden's Silk Manual.]

Transplanting Mulberry Trees, &c.

What would be the proper season for taking up, transporting, and setting out young trees (*Morus Multicaulis*) from the Northern States to the Southern, — say the latitude of New Orleans, Mobile, Pensacola, or St Augustine? Will the Editor of the Manual be so good as to give us an article on this subject in the next number?

GEO. L. CROSBY.

By the Editor.—We believe that either Fall or Spring will answer for transplanting mulberry trees as well as all other trees. Mr Cobb says, "I prefer transplanting in the Spring." * "In France they transplant just after the fall of the leaf in the autumn." † The following, from Mr D. Stebbins, of Northampton, Secretary of the Hampshire, Franklin and Hampden Agricultural Society, contains useful hints relative to transplanting, and infers that Autumn is to be preferred. "In setting out your mulberry trees," says Mr S. "I should recommend that you head them down to within four or six inches of the ground, and the sprouts from the roots will, next spring, grow with great vigor. I have, in my nursery, evidence of the fact, and also that the new tree from the root has grown a greater height than those not headed down. It requires all the nourishment of the root to support the old stalk, and it also looks old and unpromising, but the new shoot looks young and vigorous.

"I have one or two thousand yellow locusts of four to eight feet in height to set out, and intend to head them down before setting; having, for five years past, been setting out the whole stalks to no profit of increase. The importance of heading down is acknowledged by our best gardeners here."

Massachusetts Silk Company.

An association of gentlemen of this city and vicinity, under the above title, with a capital of \$100,000, have purchased a large tract of land in Framingham, Mass., 20 miles from this city, on the Worcester rail road, and they have 100,000 trees of the White Mulberry, and 10 to 20,000 of the *Morus Multicaulis* trees, which are to be set out; and, with the future addition of trees, will form a large plantation. They have made a selection of an unrivalled location, and there is every reason that the Silk business, under the direction of the gentlemen interested, will succeed, and be a source of profit to themselves and a great benefit to the country. A plantation of 150 acres of White Mulberry trees, at six years of age, will produce 20 to 25,000 lbs. of raw silk annually, which, at \$4 per lb., will amount to the enormous sum of \$100,000.

* Cobb's Manual, p. 16.

† Rusk's Manual, p. 45.

ECONOMY AND COMFORT.—As the season has arrived when every proprietor must procure shoes for his slaves, we think it not amiss to publish the following recipe for making an elastic paste with which to saturate them. The tendency of which is, first, to make them perfectly water proof; secondly, to make them last as long again as they would without its use; and, thirdly, to make the hardest leather soft and pliant, and therefore more easy and comfortable to the feet. We have said that it will make the leather perfectly water proof, and in so saying we speak from experience, having gunned in a pair of boots saturated with this mixture for years from early dawn till near night, day in and day out, during each return of the woodcock season, the better part of which time we were half knee deep in mud and water, and came out with our stockings as dry as when we entered the willow bottom. The following proportions will answer for fifty pairs of shoes.

Take 3 oz. gum elastic, cut it up into fine shreds, put it into a gallon jug, add to it 3 quarts of *Seneca* oil, let it stand three or four days, when the gum will have been dissolved, and the paste fit for use. Stir before using; then rub the uppers and soles of the boots or shoes well with it three or four different times before the fire, whichever the leather will absorb it. The degree of comfort which this mixture will ensure to the wearer of heavy shoes and boots can only be realized on trial. It might be used with an equally good effect upon the harness and gearing of work horses, and we have no doubt would make one pair last as long as two.

Having given this recipe we feel it due to candor to say that the merit of its discovery belongs to Mr Gideon B. Smith, of this city.—*Baltimore Farmer*.

A SQUASH.—The N. H. Gazette says that a squash of the Canada species, was raised in the garden of Wm. Stinson of that town, this season, that weighed *two hundred pounds* and was sold for *five dollars*. Mr Stinson, adds the Gazette, is in his own person, a tolerably decent edition of Daniel Lambert—and we wonder not that every thing about him thrives.

The Worcester (Mass.) Spy, says:—John Porter, of Sterling, has this year gathered from a single vine, twelve good ripe pumpkins, weighing, in the aggregate, 286 pounds, averaging about 22 pounds each. The vine was of spontaneous growth, and received no attention during the season.

Snow fell October 1, to the depth of half an inch, in Montrose, Susquehanna county, Pennsylvania.

A MAN OF THE OLDEN TIME.—On Wednesday, the 23d ult. Moses Brown, the venerable Friend, entered upon his ninety-eighth year. He is, I believe, the oldest individual in this city, where he was born, and where he has passed his long, and useful, and happy life. The regular monthly meeting of the Society of Friends occurred on the forenoon of the same day. In compliance with his almost invariable practice, he was found in his place on that occasion, manifesting his habitual interest, and taking an intelligent part in the deliberations and acts of the meeting. At dinner he was surrounded by several of his family connexions and familiar friends. In that group, however, there was neither wife, nor brother, nor son, nor daughter, to extend to the patriarch the hand of congratulation, or to revive, with anything like a cotemporary interest, the memories of the distant past. All these he has outlived! Of his lineal descendants, only one grand daughter and three great grand children are now living. He was the youngest of four brothers, and in early life his constitution was thought to be so delicate as to give little hope of a long life. Indeed, to quote his own language addressed to the writer of this notice, on the recent anniversary of his birth day, he would gladly have compromised, had it been in his power, for a life extended to the term of *sixty years!* The last of his brothers he has survived more than thirty years.

On the afternoon of his recent birth day, several of his collateral kindred and personal friends paid him a visit, to congratulate him upon his reaching another mile stone in his long journey with powers of body and mind, which leave him still capable of usefulness, and alive to enjoyment. He received them with much kindness, rising from his seat on the sofa, as each one advanced to greet him; he conversed familiarly upon various topics connected both with the past and the present; and in no instance did he lapse for a moment either into the garrulity or the torpor of age. He betrays in fact no symptoms of senile dotage, and in proof of this it may be mentioned, that he not only is an efficient supervisor of the Friends' Yearly Meeting Boarding School in this city, but that for years he has been and still is the Treasurer of that important and richly-endowed institution. The duties of this responsible office he discharges with great exactitude, without the aid even of a clerk to perform the ordinary labors of an accountant. To what causes may this extraordinary exemption from the almost inevitable infirmities of life thus prolonged be ascribed? I pretend to offer no philosophical solution of the phenomenon. As a plain man however, I answer, that Moses Brown owes his remarkable longevity and the healthy action of his mental powers, mainly to three causes — first, to temperance and regu-

larity in his habits of living — secondly, to the influence of his peculiar religious faith and practice, in preserving its votaries from the agitation of the passions, from an exhausting solicitude to win the high prizes of life, and from a voluntary servitude to fashion and to pleasure — thirdly, to the fact that he has never suffered his faculties to rest from want of use; that he has exerted them constantly upon subjects fitted not only to maintain their true balance, but to recruit their decaying strength, and to ensure to them after the lapse of nearly one hundred years no little of the practical efficiency which is but too generally the exclusive possession of those over whose natural force time has achieved no triumph.—*Providence Journal.*

THE OUTA SNAKE.—Before we quitted Choor, our dandies, who had kindled a fire on the bank of the river, were dressing their rice and curry, when a small snake, approaching the place where they were seated, one of them arose and despatched it with a piece of bamboo. It was about 25 inches long, entirely white except the top of the head, which was a deep shining black. This particular species is called by the natives the Outa snake. It is very rare, and of peculiar habits. These creatures always go in pairs, and it is remarkable that if one is killed by man or beast, the survivor will follow, until it is either destroyed or obtains its revenge by biting the author of its bereavement. It has been known, under such circumstances, to keep up the pursuit with the most patient perseverance for 300 miles. The little creature whose mate was killed by one of the boatmen, was seen after we had pushed from shore, gliding along the bank of the stream in a direct line with our boat, and when we reached Cown-poor, there we found it ready to deal its vengeance upon the wanton destroyer of its conjugal felicity. It was despatched before it could put its evil intent into execution.—*Scenes in India.*

ESSENCE OF ANCHOVY.—Put as much water into a stewpan, on half a pound of the finest anchovies, as will make, with their liquor, the quantity of nearly three pints; with a little scraped horse-radish, a small sprig of thyme, three or four chopped shallots, a blade of mace, about a dozen pepper-corns, a few bits of lemon-peel, a gill of good beer, with a little sugar, or half a gill of red port, and half a gill of either the best ketchup or soy. After the whole has boiled together for at least a quarter of an hour, rub it with a wooden spoon through a fine sieve; and, when quite cold, put the essence up in bottles, and keep it closely corked for use. This excellent essence will remain good for a long time.

[From the Albany Cultivator.]

PRESERVING MEATS.

The intrinsic value of salted meats, whether for family use or for market, depends materially upon the manner in which they are preserved. An excess of salt renders lean meats, as beef and hams, hard, tough and impalatable, besides destroying much of their nutritious properties; while too little salt, or an equivalent of some other antiseptic, will not preserve them in a healthful state. It is as easy and as cheap to preserve meats well, as it is to do it badly, if we are furnished with good rules, and duly observe them. There are no doubt many rules adapted to this end. We have tried many, and have finally, for some years, adopted, with perfect satisfaction, for family use, the pickle which we give below, for the curing of beef and hams. It is said to be equally good for pork, though we have not used it for this purpose, as we lay down none but the fat part of the hog, which is not injured by an excess of salt. This has been denominated the

Knickerbocker Pickle.—Take 6 galls. of water, 9 lbs. of salt, 3 lbs. coarse brown sugar, 1 quart of molasses, 3 cunes salt petre and 1 oz. pearlsh: mix and boil the whole well, taking care to skim off all the impurities which rise to the surface. This constitutes the pickle. When the meat is cut it should be slightly rubbed with fine salt, and suffered to lay a day or two that the salt may extract the blood; it may then be packed tight in the cask, and the pickle, having become cold, may be turned upon and should cover the meat. A follower, to fit the inside of the cask, should then be laid on, and a weight put on it, in order to keep the meat at all times covered with pickle. The sugar may be omitted without material detriment. In the spring the pickle must be turned off, boiled with some additional salt and molasses, skimmed, and when cold returned to the cask.

For domestic use, beef and pork hams should not be salted the day the animals are killed, but kept until its fibre has become short and tender, as these changes do not take place after it has been acted upon by the salt.

Meat that is to be dried and smoked, requires less salt than that which is to remain in pickle, on account of the preserving qualities of the pyrolignic acid, which is supplied by the smoke of the wood. The great art in smoking meat well seems to consist in having the meat dried by smoke, and not by heat. The hams of Westphalia, and the smoked beef of Hamburgh, which are unrivalled in reputation, are managed in this way. The Westphalian farmers have a closet in the garret, joining the chimney, made tight, to retain smoke, in which they hang their hams and bacon to dry, out of the effect of the heat of the fire. Two apertures are made from the closet into the chimney,

and a place is made for an iron stopper to be thrust into the funnel of the chimney, to force the smoke through the lower hole into the closet. The upper hole must not be too big, because the closet must be always full of smoke, and that from wood fires.

The Hamburgh method of making their superior smoked beef is this: Fires of oak chips are built in the cellars, from whence the smoke is conveyed by two chimnies into the fourth story, and thrown into a chamber by two openings placed opposite to each other. The size of the chamber is proportioned to the quantity of meat to be smoked, but the ceiling is not raised more than five feet and a half from the floor. Above this chamber there is another made with boards, into which the smoke passes through a hole in the ceiling of the first, whence it escapes by openings formed in the sides. The pieces of meat are hung up at the distance of a foot and a half from each other, and a fire is kept up night and day for a month or six weeks, according to the size of the pieces.

[From the Farmer and Gardener.]

RIBBON GRASS.

PLAINFIELD, Windham co., Ct.

Dear Sir: I received a letter from you, a short time ago, requesting information concerning the ribbon grass [*Phalaris Americana*]. The grass you saw at Plainfield, on Mr Woodward's farm, two years since, I was informed originated from the ribbon grass. It was originally cultivated in the garden for ornament, where it spread, to the great annoyance of the vegetables. Mr W. became dissatisfied with it, dug it up, and threw it over the wall into the mowing lot, where it continued to grow luxuriantly. Being determined to get rid of it, he again took it up and threw into the brook. It was so tenacious of life, that it seized upon the watery element and spread rapidly down the brook, so that in a few years it extended down the brook more than a mile; its progress towards dry land was more slow, but has eventually spread over a number of acres, converting a bog meadow into the best of mowing. Mr BOWEN, who lived on the farm, informed me that he mowed it twice in the season, and that it produced about three tons to the acre, annually, of excellent hay, which the cattle consumed with as much avidity as any that was cut on the farm.

The meadow was so miry in many places, that cattle could not pass, but the grass roots formed such an impenetrable surface, that they could cart over it, in getting hay without difficulty; and, in some places, they entirely united across the brook, forming a natural bridge that a person might pass over. The brook is sufficiently large to create a cotton factory which has been erected about a mile below.

I have taken considerable pains to ascertain the history, character and importance of the ribbon grass, and come to the conclusion, that it was originally an aquatic grass, and that the striped color was produced by being transplanted into a dry, gravelly soil. I have seen it in a number of places where it had been cultivated for ornament, spreading beyond its boundary and outrooting other grass: in these instances, if in the shade or on moist ground, it loses its striped color. In one instance, the roots passed under the garden wall into the back yard, and entirely eradicated the other grass, and occupied a number of rods of ground, when it grew rank and lost its striped color. I have not been able to ascertain the best mode of propagation; it produces little if any seed that will vegetate. The striped grass of the garden, I am confident, does not produce any; for we have cultivated it for near twenty years, and have never known a single spear that was produced from seed. The Phalaris that grows in wet land, blossoms abundantly, but produces very little seed, and that is liable to become fungus, resembling the spurred rye. The propagation by transplanting the roots into wet land among the bogs, although attended with but little labor, must take considerable time to entirely eradicate the bog grass, as I have proved by experiment. I transplanted, a number of years since, into a bog meadow, some of the grass, and although it took root and grew rapidly, spreading among the other grass, and even sending up shoots in the centre of bogs, still the bog grass remains. I planted, as an experiment, about one half of an acre bog meadow with the Phalaris a year last spring, it having been previously ploughed for two or three years; it was planted four feet apart each way; it all lived, and is spreading well, and probably in a few years will occupy the whole ground. I have ploughed up one acre more, and intend to plant it in the same way. I also sowed some of the seed last spring, procured from grass that grew on wet land, but am not certain that any of it has come up. Shall sow more next spring, and hope in a few years to be able to ascertain its importance, and the best mode of cultivation. Yours, with respect,

ANDREW HARRIS.

Hon. Elizur Goodrich, Jr.

SELECTION OF SEED WHEAT.—The selection of good seed of any kind, to plant or sow, is an object of no small importance to the cultivator, and we accordingly find farmers, who are careful, pursuing some plan or other which shall ensure them the best seed for their sowing. In the case of wheat, some select the largest and best ears or heads, which they can find, others throw up their wheat in a windy day, and select that which is blown the least distance, as being the heaviest and

most plump. We think, however, that the best plan, and the one which will be most sure to give the heaviest grain, is to put it into some thick liquor and take those kernels which usually sink to the bottom. Liquors may be made sufficiently thick to bear up an egg, by various substances in them, by potash, as in common lye — by soap or by salt. Darwin recommends a solution of salt sufficiently strong to bear up an egg, and the wheat plunged into this. This might be done at the time of sowing, or even before, if the wheat wet in it be carefully dried — but at sowing time, when it is common to soak or wash wheat in lye it would be a small matter to make the liquor as strong as possible, and thus select the heaviest and best of your seed while preparing it for the ground. It would be but a little labor to test the plan on a small quantity and ascertain the facts concerning it.—*Maine Farmer.*

TO CORRECT MUSTINESS IN GRAIN.—Corn which is housed without being thoroughly dried, or which is stored in a damp place, acquires a musty smell and taste, which render it unfit for the customary uses; but as this alteration affects only the outer covering, and not the substance of the kernel, it may be easily removed by throwing upon the grain double its weight of boiling water, carefully stirring the mass till the water becomes cold. The spoiled kernels, which swim upon the top, must then be removed, the water poured off, and the grain spread to dry. M. Peschier preferred employing for this purpose boiling water rendered slightly alkaline, and afterwards washing the grain in pure water. When corn has been heated, or manifestly injured, the vegeto-animal portion is almost always changed: the farina will not ferment well, and the bread made from it is unwholesome: such grain will answer for starch.—*Chaptal.*

From the Albany Cultivator.

PRESERVING ROOTS.

We find in Chaptal's "Chemistry applied to Agriculture," an excellent chapter on the preservation of animal and vegetable substances. We extract the following from the preliminary remarks.

"The nature of all bodies which have ceased to live or vegetate, are changed, as soon as the physical or chemical laws, by which they are governed, cease to act; the elements of which they were composed, then form new combinations, and consequently new substances.

Whilst an animal lives, or a plant vegetates, the laws of chemical affinity are continually modified in its organs by the laws of vitality; but when the animal or plant ceases to live, it becomes entirely subject to the laws of chemical affinity, by which alone its decomposition is effected.

The principles of the atmospheric air which is imbibed by the organs of living bodies, whether animal or vegetable, are decomposed and assimilated by them, whilst dead bodies are decomposed by its action. Heat is the most powerful stimulant of the vital functions, yet it becomes, after death, one of the most active agents in the work of destruction. Our efforts, then, for the preservation of bodies, ought to be directed to counteracting or governing those chemical or physical agents, from the action of which they suffer; and we shall see that all the methods which have been successful, are those which have been formed upon this principle.

The chemical agents which exert the most powerful influence over the products of the earth, are air, water and heat; the action of these, however, is not equally powerful over all classes of plants; the soft and watery, and those which approach the animal matter, decompose most readily; the principles of such are less coherent, less strongly united than that of others; so that the action of disorganizing agents upon them is prompt and effectual.

All the methods now employed for the preservation of bodies, consist in so far changing their nature, as to deprive them of the elements of destruction contained within their own organs: or in secluding the substances to be preserved from contact with the destructive agents mentioned in the preceding paragraph; or in causing them to imbibe certain other substances, the anti-putrescent qualities of which counteract all action, whether of internal or external agents.

In all vegetable products, water exists in two different states, one part of it being found free, and the other in a state of true combination; the first portion, not being confined except by the covering of the vegetable, evaporates at the temperature of the atmosphere; the second is set free only at a temperature sufficiently high to decompose the substances containing it: the first, though foreign to the composition of the vegetable, enters into every part of it, dissolving some of its principles serving as a vehicle for air and heat, and being converted by cold into ice; by these several properties it greatly facilitates decomposition: the second portion, from which no evil of the kind arises, is found combined and solidified in the plants, and its action is thus neutralized."

Drying fruits, then, in order to preserve them, consists in depriving them of the water contained in them in a free state. This may be done by subjecting them to heat, not exceeding 95 or 113 degrees; either by exposing them to the sun, or in a stove room, or in ovens, which latter practice is resorted to, even in the warmest countries, at the commencement of the drying process. In preserving the apple, for instance, our author adds,

that by depriving their surface of all moisture before putting them up; keeping them in dry places, where the temperature will be constantly between 50 and 54 degrees, and by separating the fruits that they shall not come in contact, they may sometimes be preserved 18 months. The farmer in Schoharie, who has been in the habit of bringing the Spitzenberg to our market on the 4th of July, owes his success to the observance of these rules.

On the preservation of the fruits of the earth by secluding them from the action of air, water and heat, M. Chaptal enumerates the following leading causes of decay.

"The atmospheric air, coming in contact with fruits, deprives them of their carbon, and forms carbonic acid.

Fruits exposed to the solvent action of water suffer decomposition, by having the affinity existing between their constituent principles weakened, and at length destroyed.

Heat dilates the particles of bodies, and thus diminishes the force of cohesion and attraction, and favors the admission of air and water.

The combined action of these three agents produces very speedy decomposition; the effect produced by any one of them is slower, and the results different. So that in order to preserve fruits from decomposition, it is necessary to guard them from the power of these three destroyers."

Practically applied, these axioms teach, that to preserve roots in good condition, the following precautions should be observed:

1st. That their surfaces be entirely freed from moisture before they are housed or buried, and that they be deposited in a dry situation, where water will not have access to them.

2d. That they be excluded from the air, by burying them in dry earth, or slightly covering them in the cellar with earth. And

3d. That they be kept in a cool temperature; the best ranging from 34 to 45 degrees.

We frequently hear housekeepers complain, that their potatoes, turnips, and other vegetables soon deteriorate, and lose their fine flavor, after they have been a short time in their cellars. This is a natural consequence of the injudicious way in which they are too frequently kept: exposed to the atmosphere, and to a high temperature, in a cellar adjoining the kitchen, or perhaps in the kitchen itself. Again, potatoes or turnips buried in a wet condition, or the latter with parts of their tops left on, are very liable to ferment and spoil. We find it to be a necessary precaution in burying turnips, to make one or more holes in the crown of the pit, to let off the rarified air, and abate the heat which is almost invariably generated on their being buried.

In preventing the total loss of potatoes that

have been effected by frost, Thomas Dallas directs, that when they are slightly touched by the frost, it is only necessary to sprinkle the roots with lime to absorb the water under the skin; that when the outer portion of their substance is frozen, the tubers may be pared and thrown for some hours into water slightly salted; and that when they are wholly frozen, they will yield, upon distillation, a spirituous liquor resembling the best rum, and in greater quantity than roots which have not been frozen.

The quotations we have made above are invaluable to the farmer and house-keeper; and if the principles which they establish are understood and practised upon, we shall have no cause to regret the length to which we have extended this article.

MULBERRY TREES. We are informed that the Rev. J. Parker has on his premises near the Meeting House, in Southborough great numbers of Mulberry trees of different ages and of different sorts suitable for ornament, for fruit or for feeding silk-worms. We are glad to hear that such an establishment exists, in addition to others, in this vicinity, and hope the public as well as the proprietor, will be thereby benefited. The plants can be sent to the Worcester Rail Road about two miles from the nursery or taken from the nursery at the option of purchasers.

Apalachicola is a flourishing seaport situated advantageously at the outlet of the river of the same name and within St George's sound, protected by St Vincent, St George and Dog Islands: under these last lay the vessels of larger burthen. Those of 11 feet water come within four miles of the town, and 8 to 9 feet can be received at the wharves. During the active season, 13 steam-boats plied in the rivers as far as Columbus, in Georgia, transporting upwards valuable merchandise, and downwards 37,000 bales of cotton for exportation from this port—the quantity of both and consequently the business will be considerably increased the ensuing season, probably to the extent of 60,000 bales.—*Commercial Gazette.*

A young mechanic of Woburn, Mass. has invented a machine to peg boots by water. The machine is a very neat piece of work, and is said by good judges, to be a superior invention.

We examined a few days since (says the New York Commercial Advertiser) a machine for making pins by steam power, which was in operation at the factory of R. Hoe & Co. The machine is one of the most ingenious pieces of mechanism we have ever seen; it completes sixty pins per minute, and they look better and more perfect than those manufactured in the usual way.

VERMONT SHEEP AND WOOL.—The writer has noticed a paragraph going the rounds of the papers, in which it is stated that there are in Vermont twenty millions of sheep, producing wool of the annual value of four millions of dollars. The statement was so absurd, that their appeared no necessity for contradicting it, but as it has been so often repeated, it may be well to give the actual facts.

The number of sheep in Vermont does not much exceed eleven hundred thousand; the produce in wool is three pounds to the sheep, and the average price of the wool is sixtyfive cents the pound. The whole annual value is therefore a little more than two millions of dollars. The pure Saxony sheep, of which the number is not very great, produce about two and a quarter pounds; the mixed Saxony and Merino about two and three quarter pounds; the Merino about three pounds; and the mixed Merino and native, about three and a half pounds to the fleece. The average annual expense of keeping sheep in Vermont, is rather less than one dollar the head.—*Day. Adv.*

RECIPE FOR MAKING VINEGAR.—You have copied from the American Farmer into your paper, vol. 4th, page 364, "short directions for making vinegar," which are as follows:

"To 10 gallons of rain water add one gallon of molasses and one of brandy — mix them well together, and place the cask in a garret or some dry warm place, and occasional y shaking it, in a few months it will be fit for use."

Twelve gallons of the above mixture will cost as follows, viz:

1 gallon molasses	\$0 50
1 gallon brandy (adulterated whiskey)	1 50
	\$2 00

I would propose a much cheaper way for families to be supplied with this indispensable article, viz:—

Take one barrel of cider — pure juice of the apple — divide it into two parts; add one gallon clean rain water to each part, place the casks and treat them as above directed, and you will have thirty gallons of vinegar, of superior flavor and much more enduring body than that made of whiskey and molasses, and at the same or a much less price. The advantage of dividing the quantity is that it will be sooner fit for use.—"*Obvious*" in *Genesee Farmer.*

In Missouri they have no parsnips. They frequently plant them, but they strike so deep that the rogues on the other side of the globe lay hold of the roots and pull them through, so that the labor and crop is lost to the rightful owners!

Disbanding Silk from the Reel.

We have already spoken of the importance of good reeling; but in order to ensure a good article, care must be taken in disbanding the silk from the reel. The single fibres of which the thread is composed, are liable to different degrees of stretching as they are wound from the cocoons. This, however, depends much upon the assorting of the cocoons — if they are well assorted, the degree of extension will be less than if poorly or carelessly assorted. Care in assorting, however, will not wholly overcome the difficulty, because some are necessarily longer in the water than others, and therefore yield their silk more readily. The weak latter ends of some cocoons also wind off with the strong first part of others. The consequence of this is, the fibres are unequally stretched, and (if taken from the reel too suddenly) those that are most stretched will contract the most and make a thread less compact and firm.

To remedy this, let the skein remain on the reel six or eight hours, or until it is dry and the different fibres brought to a more uniform degree of extension. This also gives the fibres an opportunity to unite more firmly. After the skein is completely dry and ready to be taken from the reel, squeeze it together all round to loosen it upon the bars; and then with a thread, made of refuse silk, tie it in the places where it bore on the bars of the reel. It may then be slid off the reel, and ties should be made opposite to those first made. It should then be doubled, and tied near each extremity, and laid by for use or sale. When the skein is finished, a mark should be tied to the end of the thread, otherwise it may mix with the threads of the skein and render it difficult to find it.—*Silk Culturist*.

BITUMINOUS COAL IN MASSACHUSETTS.—The Taunton Gazette states, on the authority of a letter from Mansfield, that a bed of bituminous coal has been discovered, on the land of Mr Alfred Harden, in that town, about half a mile from the Providence Rail Road. It was discovered, in digging a well, ten feet below the surface of the ground, the vein being more than six feet in depth. It is added that a blacksmith in the neighborhood has made trial of the coal, and pronounces its quality to be good.

AMERICAN SILK GOODS.—We were on Monday shown by Charles Dyer, Esq. of Providence, a number of beautiful patterns of Silk Goods, manufactured at his establishment in Cranston, R. I. Mr Dyer informed us that several important improvements have been made recently in the looms used for weaving Silk, and that it is calculated as soon as a sufficient quantity of cocoons can be obtained, the weaving of silk will be prosecuted on

a more extensive scale than has been done heretofore in this country.

Several specimens of the above goods have been left at the Commercial Insurance Office for inspection.—*Prov. paper*.

PEAS.—The Charleston Courier states that a quantity of a new species of pea has been imported from Cuba, by Dr B. B. Strobel, of that city, and placed in the publication office of the Southern Agriculturist, for gratuitous distribution, with a view of introducing the culture into the United States. It is a native of Old Spain, and is called the *Garvanza* or *Braganza*. Peas of this kind yield in old Spain 300 bushels to the acre; they sell ripe in Havana market for from \$1 to \$1 50 per bushel. They are excellent for soups, are larger than even the marrowfats, and are said to be better cooked in the same way.—*Middletown Sentinel*.

Preservation of Straw.

MR TUCKER:—The time for threshing grain having arrived, I will give you a statement of my manner of saving and feeding straw, agreeable to your request in the 5th number of the current volume of the Farmer. Previous to commencing threshing, I go to a hay stack, and twist a quantity of bands from 6 to 10 feet long, which are placed at the barn door, and when the straw is raked to the door two men take a band and stretch it over the bundle of straw, then run each a hand under the straw, and turn it over endwise on to the band, when one of them fastens the band, and the other prepares another band; and in that manner two men will bind as fast as the swiftest machine will thresh, and the straw is stacked as securely as wheat, and in one-fourth the time required when not bound, and the foddering as performed with much less labor; and if cut, (is it should be) that operation is much facilitated. When my stock comes to the yard, I commence foddering my straw, and do not allow them to taste a lock of hay until the straw is entirely gone. The cause of the failure of so many in feeding straw, is their fears that the cattle will starve, and they give them a good foddering of hay once a day, which entirely prevents their eating straw; and as the hay is not sufficient to keep them in heart, the cattle of course become poor, and it is charged to the straw. I repeat they must not taste a lock of hay, neither must they be compelled to eat the straw clean, as a good bed is essential to their good condition. I shall cut my straw the coming season, and feed in mangers. Lambs and yearling sheep will not do well on straw uncut.—*Genesee Farmer*.

Paul Strong, of Northampton, picked from a vine of spontaneous growth, 361 lbs. and 6 oz. of ripe and unripe pumpkins: vine's length, 358 ft.

[From the Delaware State Journal.]

SILK.

The silk business is becoming an object of earnest attention in this country. We question whether any portion of it, is better adapted to the business than our own State. We mean that part of the business which relates to the production of the raw material — the cultivation of the mulberry tree and the raising of cocoons. The soil and temperature of Kent and Sussex counties are believed to be admirably adapted to it. It is a business which requires scarcely any capital but the soil itself. The raising of cocoons is but a simple process, which any housewife, nay, young boys and girls who do nothing else, may easily manage. The spinning and reeling would be an agreeable employment for the elder girls. Mulberry trees can be easily obtained, and when two or three years old, furnish abundant food for worms. The employment combines the recommendations of being healthful, agreeable and lucrative. The silk manufacture will undoubtedly become a great business in our country, and our farmers' wives and daughters will, in a short time, find as ready a sale for their cocoons, as the farmer does for his wheat and corn. A farmer, with competent means, who would introduce the mulberry tree in Kent or Sussex county, and, by his example and influence, induce others to engage in the business, would be a benefactor to his neighborhood. He might be the instrument of superinducing a most lucrative and valuable employment, which would interfere with no other occupation, and the profits of which would be clear gain to the State. It would interfere with no other business, because the trees, when once planted, require little further attention, and need occupy no ground which would be otherwise appropriated; and because also, the plucking of the leaves and feeding of the cocoons could be all performed by young boys and girls, who have nothing else to do. In a moral and intellectual point of view, if the business should become general, it would be of inestimable advantage to the rising generation, by teaching them habits of industry at that early period of life, which, in the country, is too often wasted in listlessness and ignorance; and that too by furnishing them an agreeable, healthful and useful employment, suited to their capacity and years, under their parents' eye, and enjoying the comfort and shelter of the parental roof. In short, we know of no experiment, if that may be deemed an experiment which has been a source of wealth wherever it has been undertaken — which more strongly recommends itself to our farmers in Kent and Sussex than this:—we speak of them particularly, because, having all the natural advantages of soil and temperature — and without manufactures or foreign commerce — it would admirably

amalgamate with, and agreeably and profitably diversify the monotonous routine and uncertain profits of corn and wheat crops. Let some farmer begin the planting of mulberry trees — plant them about his house, or along his fence, or make hedges of them. They take up no ground which is wanted, and they are growing while he is sleeping. Let him give shoots to his neighbors, until the tree becomes as universal as any of our forest trees. Let him follow it up by raising the cocoon and preparing the silk until it becomes, as it may easily become, a general and lucrative business. Such a man would earn a monument more enduring than brass or marble.

VALUABLE NEW WORK ON SILK.

American Silk Grower's Guide, is this day published at the office of the New England Farmer—being the art of growing the Mulberry and manufacture of Silk on the system of successive crops each season—by WM. KERRICK, author of the New American Orchardist; 112 pp. price 42 cents, neatly bound in cloth. Booksellers and traders supplied on favorable terms. GEO. C. BARRETT.

MORUS MULTICAULIS.

For sale at the Agricultural Warehouse, 51 and 52 North Market street, any number of Trees of the Morus Multicaulis or Chinese Mulberry. These trees were propagated in this country. The superiority of the foliage of this tree as food for the silk-worm over all other, has repeatedly been tested, and is proved beyond a doubt. The price for Trees, from 4 to 5 feet high is \$30 per hundred, \$4.50 per dozen, &c. 50c single. Trees but 2 or 3, with good roots \$25 per hundred. GEO. C. BARRETT,

BREMEN GEESE.

For sale at the Agricultural Warehouse, Bremer Geese and Muscovy Ducks. GEO. C. BARRETT.

GARDEN SEEDS, TREES, &c.

The subscriber is daily receiving a supply of *Garden Seeds*, growth of 1835, and will execute orders from the South at short notice, for SEEDS of the greatest variety, raised in gardens connected with the *Agricultural Warehouse and New England Seed Store*, Boston, and warranted of good quality.

BOXES OF GARDEN SEEDS containing an assortment neatly papered up in 64 cent papers supplied, at a discount to Traders, also FRUIT AND ORNAMENTAL TREES, MULBERRY AND MORUS MULTICAULIS TREES. Agricultural and Horticultural Books, New England Farmer (weekly a \$2.50 per annum), Silk Manual (monthly at 50 cts. per annum), Horticultural Register at \$2 per annum, published by GEO. C. BARRETT,

LUSTRE FLOWER POTS.

For sale at the New England Farmer Office, beautiful Superb Flower Pots.

MORUS MULTICAULIS.

JOSEPH DAVENPORT, of Colerain, Mass. offers for sale 16,000 trees of the Morus Multicaulis, or Chinese Mulberry, being a part of his trees cultivated at Colerain and at Suffield, Ct., 16 miles north of Hartford, one mile from the river. The trees are from 2 to 5 feet high. Price according to size, from 25 to 60 dollars per hundred. Were propagated from trees that endured the last severe winter unprotected. Purchasers will be furnished with a knowledge of its culture and suitable soil, which, if attended to will ensure it without protection against the severity of our climate. Trees will be carefully packed and forwarded by land or water to any part of the country. Orders received by mail will receive prompt attention. Colerain, Dec. 5, 1835

BRIGHTON MARKET,—MONDAY, Nov. 2, 1835.

Reported for the Daily Advertiser & Patriot.

At Market 2050 Beef Cattle, 1100 Stores, 3840 Sheep, and 1860 Swine. Several lots Stores were at market last week.

Prices—*Beef Cattle*—Nearly all the better qualities of market Cattle were purchased before they arrived at market, at an advance from last week. We noticed a few very fine taken at 34s 6d. Prime at 30s a 32s; good at 27s a 30s; Small Cattle at 18s a 24s.

Barrelling Cattle—Mess 24s; No. 1. 20s; No. 2 16s 6d.

Stores—Yearlings at \$1 50 a 5; two year old 7 50 a 13; three year old \$13 a 21.

Sheep—Ordinary at 9s a 10s; middling 10s, 6d, 11s 3d and 12s better qualities 12s 9d, 13s 6d, and 15s; weathers 16s 6d, 18s and 19s 6d; a few corset weathers at \$6 each.

Swine—Market quite spirited, nearly all sold and former prices fully supported. Several lots old barrows and large shoats were taken at 6, sows at 5, lots to peddle at 5 for sows, and 6 for barrows. Small lots of selected barrows at 6 1-2; at retail, 5 1-2 a 6 for sows and 6 1-2 a 7 for barrows.

New England Farmer's Almanac For 1836.

Just published by JOHN ALLEN, & CO. Corner of Washington and School streets, up stairs, and by GEO. C. BARRETT at the Seed Store No. 51 and 52, North Market Street, FESSENDEN'S NEW ENGLAND FARMER'S ALMANAC for 1836. For sale also by Booksellers, Shopkeepers, &c., generally.

This Almanac will be found one of the most interesting and amusing of the series, of which it composes No VIII. It consists of the usual astronomical calculations, humorous poetical sketches of the months; observations and directions relative to the employment of the Farmer, which will be found appropriate to each month in the circle of the seasons, "Agriculture and Rural Economy," including cuts and descriptions of many of the most useful implements employed in tillage. Valuable Recipes; Husbandry Honorable, a pithy piece of paramount poetry. The Splendors of the Setting Sun, a poetical effusion; Aphorisms; Eulogy on the Art of Agriculture; Calendar of Courts, Roads, Distances, &c. &c.

VALUABLE WORK ON FRUITS, VEGETABLES, SILK, &c

Just published and for sale by GEO. C. BARRETT, THE NEW AMERICAN ORCHARDIST, or an account of the MOST VALUABLE VARIETIES OF FRUIT of all climates, adapted to cultivation in the United States, with their history, modes of culture, management, uses, &c., and the CULTURE OF SILK; with an Appendix on VEGETABLES, ORNAMENTAL TREES and FLOWERS. By WILLIAM KENRICK.

A new edition, enlarged and improved. A chapter on "Climate" another chapter on Modern or Landscape Gardens, —also, a Practical Treatise on Mulberry Plantations, and the Culture of Silk, and the whole Class of Vegetables being now for the first time added and all that relates to them.

1 vol. 12mo. 420 pages elegantly bound. Price \$1.

AGRICULTURAL CHEMISTRY.

Chaptal's Agricultural Chemistry, first American Edition, from the French. Just published, price \$1.25. sep. 9. GEO. C. BARRETT.

FARM FOR SALE OR EXCHANGE.

An excellent Farm containing 70 acres, situated in Marlborough, Mass., with a house and barn thereon, for sale, or would be exchanged for property in the city of Boston. For terms and particulars inquire of G. C. BARRETT at this office, or N. E. PROCTOR, Esq of said Marlborough. 6m

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES, new,	barrel	1 50	2 00
BEANS, white,	bushel	1 25	1 50
BEEF, mess, (new)	barrel	10 50	11 50
Cargo, No. 1,	"	7 50	8 00
prime,	"	6 25	6 50
BEEWAX, (American)	pound	22	24
BUTTER inspected, No. 1,	"	15	18
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	46	50
southern, geese,	"	41	45
FLAX, American,	"	9	10
FLAXSEED,	bushel	1 37	1 50
FLOUR, Genesee, cash	barrel	6 25	6 50
Baltimore, Howard street,	"	6 37	6 62
Baltimore, wharf,	"	6 25	6 37
Alexandria,	"	6 50	6 62
GRAIN, Corn, northern yellow	bushel	1 07	1 10
southern yellow	"	1 05	1 07
white,	"	1 03	1 04
Rye, northern, none,	"	95	98
Barley,	"		
Oats, northern, (prime)	"	50	55
HAY, best English, per ton of 2000 lbs		22 00	25 00
eastern screwed,	"	17 00	18 00
hard pressed,	"	18 00	20 00
HONEY, new,	gallon		
HOPS, 1st quality new	pound	15	17
2d quality	"	12	15
LARD, Boston, 1st sort,	"	11	12
southern, 1st sort,	"	9	10
LEATHER, slaughter, sole,	"	19	20
do, upper,	"	12	14
dry hide, sole,	"	19	21
do, upper,	"	18	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	1 01	1 12
PORK, Mass. inspect. extra clear,	barrel	21 00	21 50
Navy, mess,	"	16 00	16 50
bone, middlings,	"		
SEEDS, Herd's Grass,	bushel	2 25	2 50
Red Top,	"	70	80
Red Clover, northern,	pound	9	11
White Dutch Honeysuckle,	"	25	30
SILK COCOONS, (American)	bushel	2 75	3 00
TALLOW, ticed,	cwt.	7 50	8 00
WOOL, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	65
do. 3-lbs do,	"	50	55
do. 1-2 do,	"	37	42
do. 1-4 and common	"	40	45
Native washed	"	38	60
Northern pulled, { Pulled superfine,	"	55	60
{ 1st Lambs,	"	45	50
{ 2d do,	"	33	38
{ 3d do,	"	25	30
{ 1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

		RETAIL PRICES.	
HAMS, northern,	pound	11	12
southern, none,	"	11	12
PORK, whole hogs,	"	8	10
POULTRY,	"	10	14
BUTTER, (tub)	"	18	20
lump	"	22	25
EGGS,	dozen	17	20
POTATOES, new,	bushel	50	57
CIDER, new,	barrel	1 25	1 75

ORDERS FOR PRINTING RECEIVED BY THE PUBLISHER.

FESSENDEN'S
SILK MANUAL
AND
PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I.

BOSTON, DECEMBER, 1835.

NO. 8.

PUBLISHED MONTHLY BY

GEORGE C. BARRETT,

51 & 52 North Market St., at the N. E. Farmer Office.

T. G. FESSENDEN—EDITOR.

Fifty cents per year—twelve copies for five dollars—always in advance.

☞ Postmasters and Agents allowed 10 per cent on all subscribers.

BOSTON, NOVEMBER, 1835.

**FACTS AND OBSERVATIONS
RELATIVE TO THE CULTURE OF SILK.**

THE following facts are from a slip cut from a New York newspaper, but the date nor the title not being preserved, we cannot give credit to the source from which we have derived it.

About five years ago, William Gillespie, Esq., of the town of Montgomery, Orange County, (N. Y.), sowed seed for a nursery of the white mulberry, (*morus alba*) for the purpose of the culture of the Silk Worm. The ground occupied by the nursery is about four square rods. This small lot yielded last summer 175 skeins of sewing silk, rivalling in softness, strength and beauty, the best imported specimens of the same article. These skeins, with a sufficient quantity of tow for a pair of stockings, would command in market \$10. The whole labor expended in the culture, Mr Gillespie estimates at \$2—making the product of four square rods \$8. One acre cultivated this way would yield \$320, besides the expense of the labour.

Farmers might clothe their wives and daughters with silk of a good quality at less expense than it now requires to clothe them in fine cotton. It is estimated that \$5,000 worth of sewing silk is sold annually in Orange County alone, and the whole sale of the article in the State of New York may probably be estimated at 150,000. All this

would be saved in our country by the extension of this very profitable branch of husbandry so as to supply the home consumption. Much of the labor too can be performed by small children who would otherwise be idle, and thus early habits of industry would be created.

The whole process is simple, and a knowledge of it easily acquired. After the middle of May, the egg of the silk worm is brought from the bureau, and exposed to the warmth of the air, but not to the rays of the sun. Early in June the term of incubation expires, and the small silk worms make their appearance. They are now to be fed with mulberry leaves, with which they are supplied twice a day, the leaves to be scattered in the enclosure where they are kept. In about six weeks they attain their full growth, when they are of a beautiful golden color. A small quantity of leaves supplies them for the five first weeks; the sixth week they require an abundant supply. Mr Gillespie informs us, that during this week when a stranger visits their apartment, they leave off eating, raise their horn and give plain indications that they know him to be strange.

After feeding about six weeks they quit eating and are prepared to commence spinning. Oak or walnut leaves, dried in the sun so as to be curled are now thrown into their enclosure; they lodge in the folds of the leaf, and begin to spin from their own bowels—first the tow by which they attach their web to the leaf, then the thread, which they form into a perfect web, so as to shut themselves closely within.

The larvæ or worms enclosed in the balls, that are intended for propagation, cut their way out of the silken cell and escape from their own prison, in the form of a butterfly, with beautiful variegated wings; white paper is placed under them, on which the egg is deposited; one butterfly will

deposit two thousand eggs. These papers, with the eggs are laid away in a chest or desk until the following spring, when the process above described is again repeated.

After this interesting insect has furnished the fine material, the tow is picked off the balls, which are thrown into hot water and a stick is passed among them, to which the ends of the threads attach themselves. For sewing silk, forty of them are laid together and reeled. The thread thus composed of forty fibres, is twisted hard on a large spinning wheel, then doubled and twisted again, and wrought into skeins. The whole process of manufacture is completed by scouring in the same manner as woollen yarn to detach the glutinous substance, which the worm employs in the fabrication of its thread.

From the Horticultural Register.

SILK CULTURE IN INDIA.

Roxbury, November 19, 1835.

MY DEAR SIR,—Having recently been reading Milburn's Oriental Commerce, I was much interested in the account he has given of the silk culture in India: and as it contains some valuable information, which I do not recollect to have seen in any other work, on a branch of rural industry, which has claimed so much of your attention, and is becoming so important to this country, I enclose several extracts for publication.

The mode in which the mulberry plantations are managed, is novel, and well worthy of experiment; for if it will not enable us to obtain, as is there done, six crops of silk in a year, it is possible such advantages may be derived, as to induce its adoption, — especially in the Southern States.

The two species of silk-worms, which are described as peculiar to Hindostan, might be a valuable acquisition; especially that of Arrindy, as the Palma Christi, on which it feeds, flourishes throughout the United States.

The descriptions of the various kinds of silk produced in Bengal, and the mode of ascertaining their qualities, may be found useful to those who have established manufactories in this country, and as yet rely on the raw silk of India for their looms.

With great esteem,
your most obedient servant,
H. A. S. DEARBORN.

EXTRACTS.

Silk Worm. — “In Bengal, the largest and best cocoons are preserved for the grain, and preserved in bags suspended to the roof of the hut of the peasant. When the insect is ready to burst its

prison, a few balls are placed in a large basket on one shelf of a frame, provided for the nurture of the worm. The frame in common use, consists of sixteen shelves, placed in a shed upon vessels filled with water, by way of precaution against ants. After the moths quit their covering, attendance is required to remove the males as soon as their functions have been performed, and the females when they have produced their eggs. The basket is carefully covered with a cloth, and in a fortnight the worm quits the egg. They are first fed with mulberry leaves, chopped very fine; as they advance in their growth, they are dispersed into more baskets, on the several shelves of the frame, and are supplied with leaves, cut into larger pieces, and latterly with whole leaves, until the period when the insect quits the food. As soon as it recommences eating, branches of mulberry trees are thrown on with the leaves upon them, and the insects eat with eagerness, and soon fill the baskets on the whole number of shelves; they arrive at their full size in a little more than a month from their birth, and changing their skins for the last time, are disposed to begin their cones. They are now removed to baskets, divided into spiral compartments, where they spin their webs, and cover themselves with silk. When the cocoon is completed, a few are set apart for propagation, and the rest are exposed to the heat of the sun, for the purpose of killing the chrysalis.”

“The peasants sell the cocoons to the filatures, or winding houses, most of whom are in the employ of the East India Company.”

Cultivation of the Mulberry Tree. — The following is the mode of propagating the mulberry tree. The waste land is opened with the spade in the month of April; good soil is brought and enough is thrown on to raise it one cubit.* The ground is well broken with the plough, and levelled with an implement, which in form resembles a ladder, but which supplies the place of a harrow. The mulberry is planted in October; the slips are cut a span† long, thrown into a hole, covered from the sun, and are continually watered, until at the end of a fortnight they begin to vegetate. They are then transplanted into the fields, in holes, distant a span from each other, and nearly one span deep; four or five cuttings are placed obliquely, in each hole, which is then filled up, so as to cover the slips with a finger‡ of earth, closely pressed down. As soon as the plants appear, in December or January, the field is weeded. In April, when they are grown to the height of a cubit, they are topped, so as to leave a stem one hand§ high; otherwise

* The cubit of Bengal is eighteen inches.

† The span is nine inches.

‡ The finger is three fourths of an inch.

§ The hand is three inches.

It is thought that the leaves would be bitter and hard, and that the worms would refuse them. A hand-hoeing is now given, and a fortnight afterward, the leaves are ready for use. The plant is then cut down a little above the root, and the silk worms are fed with the leaves; the field is weeded, if necessary, and another crop is obtained in June, and a third in July; but the leaves of this last crop only are gathered without cutting the stem, because that operation at so late a season, would, it is apprehended, injure the plant. The field is again weeded, and a fourth crop is ready in September; after gathering it, the ground is ploughed several times, and levelled with the implement above mentioned. In November, a hand-hoeing assists vegetation, and accelerates the best crop, which is cut in December; this is followed by a hand-hoeing and weeding, and is succeeded by another crop in March. The same course recommences, and the field, if sufficiently attended and cultivated, will continue productive during many years."

The Silk Worms of Tusseh and Arrindy.— "There are two other kinds of worms, which produce silk in Bengal, viz. the Tusseh and Arrindy worms; the former are found in such abundance, over many parts of Bengal, and the adjoining provinces, as to have afforded to the natives, from time immemorial, a considerable supply of a most durable, coarse, dark-colored silk, commonly called Tusseh silk, which is woven into a kind of cloth, called *Tusseh dooties*, much worn by Brahmans, and other sects of Hindoos. This substance would, no doubt, be highly useful to the inhabitants of many parts of America, and the south of Europe, where cheap, light, cool, durable dress, such as this silk makes, is much wanted. This species cannot be domesticated."

"The Arrindy silkworm is peculiar to the interior parts of Bengal, in the districts of Dinagore, and Rangore, where the natives rear and breed it, in a domestic state, as they do the silkworm. The food of this kind consists of the leaves of the common *Ricinus*, or *Palma Christi* plant, which the natives of these districts call Arrindy, and is abundantly reared in all parts of India, on account of the oil obtained from the seed. Feeding these caterpillars with these leaves, will therefore make it doubly valuable, where they know how to spin and manufacture the silk. Their cocoons are remarkably soft, and white, or yellowish; and the filament so exceedingly delicate, as to render it impracticable to wind off the silk; it is therefore spun like cotton. The yarn thus manufactured, is wove into a coarse kind of white cloth, of a seemingly loose texture, but of incredible durability, its uses are for clothing, for both men and women; and it will wear constantly ten, fifteen,

or twenty years. The merchants, also, use it for packing fine cloths, silks and shawls. It must, however, be always washed in cold water; if put into boiling water, it makes it tear like old rotten cloth."

Kinds and Qualities of Raw Silk.— "Bengal raw silk, is divided into two classes; the reeled according to the old method, commonly called country wound, and that reeled according to the new, or Italian method. The places where the former is manufactured, are Comercolly, Jungypore, Rungpore, and Banleah; and those where the latter is prepared, are Comercolly, Malda, Radnagore, Jungypore, Ruugpore, Banleah, Cassimbuzar and Gonatea.

The leading point which determines the value of Bengal raw silk, in cleanness, or, being free from knibs, or knots, known amongst the manufacturers, by the appellation of "*foul*;" evenness of thread is also most essential.

To judge if silk be clean, the best mode is to open the skein, and stand with your back to a window, so that you look down the extended silk in the same direction that the light falls; by this means you will easily perceive any *foulness* that exists, and a very little practice, will enable any person by a mere *coup d'oeil*, to judge accurately upon this most essential quality of Bengal raw silk.

The different degrees of fineness and coarseness, are denoted by the letters A. B. C. Silk of 4—5 cocoons, is called A. No. 1; of 6—8 cocoons, A. No. 2; of 8—10 cocoons, B. No. 1; of 10—12 cocoons, B. No. 2; of 12—14 cocoons, and 16—18 cocoons, B. No. 3; of 18—20 cocoons, C. No. 1; of 20—22 cocoons, C. No. 2; and 22—24 cocoons, &c., C. No. 3. All filature silk, or that which is reeled in factories, is included within the above named letters and numbers; but silk which the natives reel by hand, is much coarser, and is marked by the letters A. B. C. D. E.

The Banleah filature silk, is inferior in fineness to Radnagore, or Cassimbuzar filature silk of corresponding letters, and Comercolly filature silk exceeds these."

ROBERT'S SILK MANUAL.

We have been favored by the author, with a copy of a work entitled "*A Manual, containing directions for sowing, transplanting and raising of the mulberry tree together with proper directions for propagating the same by cuttings, layers, &c. &c.* As also instructions for the culture of silk: To which is added calculations shewing the produce and probable expense of cultivation of from one to ten acres, as tested by actual experience, by

EDWARD P. ROBERTS, *Editor, Farmer and Gardener.*

Immediately after the title page, the reader of this Manual is presented with a handsome plate, headed *representation of the different ages of the silk worm*. In this the insect is exhibited as feeding on a branch of a mulberry tree, and the different appearances of the wonderful worm in all its metamorphoses are pleasingly and faithfully delineated.

The following extracts from the preface to this work will give our readers a better idea of its plan and execution than could be done by any of our observations. The author states that in the compilation of this Manual "he is indebted to articles in the *Encyclopedia Americana*; *Lardner's Cyclopaedia*; the *Edinburgh Encyclopedia*; *Kenrick's Orchardist*; *Observations on the Silk Worm*, by William B. Buchanan, Esq. published in 1828; the *Treatise on the Culture of Silk*, published in 1830, by John D. Homergue and Peter S. Duponceau, Esqs.; *Cobb's Silk Manual*, published in 1831; the *Trade and Navigation of Great Britain*, considered by Joshua Gee, published in 1760; the letter from James Mease, transmitting a treatise on the rearing of silk worms, by Mr DeHazzi, of Munich; and the *Manual of the Secretary of the Treasury* on the same subject; both of which last works were printed by Congress, in 1828; the various articles respectively in those excellent periodical Journals, *Fessenden's Silk Manual* and *Practical Farmer*; the *Silk Culturist*; the *Silk Worm*; essays in the *Farmer's Register*; and various other periodicals. * * * *

"The work of Count Dandolo, which forms the superstructure of the two Congressional documents, previously noticed, is so full upon every head connected with the subject, that after reading every thing within his command, the Editor's only difficulty seemed to be to separate what might be termed the purely scientific and philosophical parts, from those of a more practical character, with a view of presenting to the agricultural community, a *Manual*, wherein all might derive the necessary information to carry on the silk culture in its every branch and department from the sowing of the mulberry to the reeling of the silk. How far he has succeeded he will not pretend to say, but shall leave that to others

to determine, being content himself, in the declaration that he labored with a singleness of intention to promote what he considers a great and growing interest of his country."

We have not yet had time to read this work, attentively, but from the slight perusal we have been able to give it, we believe it will prove a valuable acquisition to the stock of information already in possession of the public.

REV. JOHN TODD'S ADDRESS

DELIVERED BEFORE THE AGRICULTURAL SOCIETY,
at Northampton, October 7, 1835.

There seem to be some obvious advantages in calling a man to address you on a subject about which he knows nothing. If a man understands a subject, you feel bound to give him your close attention,—to weigh what he says,—and, it may be, yield some prejudices, or act in conformity with his advice. Not so in the other case: if you bestow little or no attention, you feel that he deserves no more; if you feel that here or there your principles or practice are reprov'd, you can comfort yourself that *he* does not understand the subject. All these advantages, and many others, equally great, will be abundantly realized on this occasion. There is one thing, however, which I hope you will remember; and that is, that if I do not throw out any hints which are of any worth, it will not be because I do not wish to do it.

It is obvious to every man, whether he be a keen observer or not, that our farming improvements are very far from keeping pace with the day. Our manufacturers spare no study, no travel and no expense, to improve their machinery. If we have not machinists who can make this or that part of the machinery, they send to Europe where there are. If we have not men who can dye this or that color, or weave this or that beautiful pattern, they will search every nook and corner of the old world, till they are found. And men have been smuggled away from England in casks and hogsheads who are now in some of our factories. The man who can simplify a machine by taking out a single wheel, is rewarded with a fortune. But when and where do you find the farmer or a combination of farmers who take equal pains to make improvements? Is it not a kind of received maxim, that little or no improvements are to be made in farming? And as a profession, is not that of farming supposed to be where, or about where, it is to remain? As you pass over the beautiful hills and valleys of New England, and see not more than a half, or perhaps a third of the land subdued; barren hills, bushy swamps, and fern pastures,—

there not something forbidding in the profession of a farmer? And do not our young men, for the most part, turn away to almost any thing, rather than be farmers? Why, they had rather be pale-faced, penniless clerks in our cities — rather make their home on the mountain waves — rather hide in the forests of the west, than to settle down as farmers in New England.

There is no banner that waves upon the deep, which waves over prouder hearts, than our own stars. There is no ship that climbs the waves, that leaps off with a freer gait, than our own. — And there is no man on the face of the earth, that can lift up his head with more real respect, than a citizen of these United States. But the proudest spot, (if we may talk about pride,) on this or any other continent, is New England. You may talk about the mighty west — or the lofty character of the south — but go where you will, there is no spirit that walks this earth like that of the Yankee. Do you hear the fall of the mighty tree in the wilderness? depend upon it, it falls by the Yankee's axe. Do you find the stream turned away from yonder mountain, and apparently made to run up hill, and increase as it runs? it is his hand that digs the channel and guides it. Do you find the man near the southern pole who dares go and look into the mouth of the whale? he is a Yankee; to be sure he cannot make discoveries in the moon, and find mountains of precious stones there; but if you could make him believe there were such things there, I verily believe he would seek a ladder by which to get there, and then with a patent for the invention, draw it up after him.

Now for one, I not only glory in being a New England man, but I want to transmit this character down to posterity. But I believe we are in fault in one respect, viz: we suffer too many of our young men to go off and leave us. We raise up a promising son, upon whom we set our hearts, and if he has any share of spirit and enterprise, he is away, and New England is no more his home. A few remain, — not one-fifth of what the soil would support, not enough to raise what we consume, but enough to keep our farms in always the same condition as they have been for generations. Our hills will continue barren, and the mica will shine in our rocks, and whole districts will continue swamps and waste lands, so long as our young men all go off. Those who would make first rate men are pushed off, and their enterprise is all lost to us. Now if I could throw out a few hints which would be the means of keeping our young men at home, I should not only promote the interest of the farmer, but the whole interests of New England, and of the nation. *Let us look, then, at the causes which carry our young men away.*

There is one trait in the character of New England people peculiar to them. It is the ardent, unquenchable love of money. Money the Yankee must and will have. On that he fixes his eye with a gaze ever burning and eager. — Sometimes you will find him chasing the whale, trapping the beaver, on the raft on the St Lawrence, on the pedlar's cart among the mountains, or watching the machinery which every moment turns out a button, or a roll of cloth. Sometimes you will see him seeking money by marriage at a distance — and I believe this is the only way in which he honestly acquires it, while at the same time he loses all self-respect. This leads him to inventions and patents, and I regret to say it, sometimes to a species of dishonesty which is well known by the name of wooden nutmeg selling. It also leads to many useful inventions; and in the words of the ballad which I lately heard beautifully quoted,

“If we the wooden nutmeg make,
We made the cotton gin, Sir.”

Now many, who most egregiously mistake our character, suppose that all this springs from a selfish, a cold, an avaricious disposition; that it would be impossible for a race, in whose bosoms there was a particle of any thing but *avarice*, to be so greedy for money. But this is not so. The Yankee miserly! What mean these schools, these colleges, these seminaries of learning scattered over all New England — the glory of this or any other land! Is there a spot on earth where money is so freely and so abundantly given to these and to kindred objects, as in New England! Miserly! Shew our community a great and noble enterprise of a public nature, and see if there be a people on earth who will be so generous — more noble — more sublime in their acts.

And yet it must be confessed that the Yankee loves money, and that he will have it. And what is the principle which moves him in all this? I will tell you: *it is an inborn, unquenchable, irrepressible desire to be independent.* Our sons, from the very cradle, breathe the air of independence — and we teach them to owe no man — to depend upon no man. It is to gratify this love of independence that they rake the ocean and the earth for money. Now I would not have them possess less of this spirit; but I would shew them that they can gratify it by staying at home. Let the enterprise which is expended in subduing the forests, and enduring the fevers of our new country, be expended upon the waste hills and unsubdued valleys at home, and New England would be a garden, and we could have a population, I hesitate not to say, of ten to one. Try then to raise the standard of farming, by subduing our soil, and you keep our youth at home. Till this is done, and till our young men can see that they can live

here and be independent, they will go off. They ought to go off. Now there is a great mistake among farmers, which has a bearing on this point. And that is, *they covet too much land*. Almost all our farms are probably from four to ten times too large. A farmer never feels that he has got land enough. He adds field to field, does not half subdue or manure what he has got, and still wants more. One of the most productive and profitable farms I ever saw, contained but fourteen acres. It was every inch subdued, improved and manured; and the owner is what we call a very thrifty, if not a rich man, — while his neighbor, who skims over three hundred acres, and works full as hard, grows poor. By proper management, I am satisfied, every acre of land which is fit to raise corn upon, *can* be made to yield one hundred bushels to the acre. Is it not better to put the manure and care and labor upon it, and raise the one hundred bushels, than to spread the same over four acres, and thus drive away three of your sons to the west? As long as farmers feel that they must have so much land, they will be in debt, will hate Life Insurance Offices, will never see what the earth can be made to yield, and never have New England filled up with a great body of intelligent farmers. As things now are, what is the process? I will tell you. A man owns one of our large farms. It is paid for. He raises up a large family. The girls are married off, and he gives each one her portion. He himself dies, and his farm falls to his five sons. One of these five takes the farm, and agrees to pay the other sons their shares. They go off to the west, and return no more. He undertakes by economy and industry to keep *all* the farm, and send four-fifths of its value to the west. By and by, he finds he cannot do it as fast as he agreed to do it. He goes to the Life Insurance Company, or somewhere else, mortgages his farm, and starts anew to pay for it. All his life he toils — pays interest — thinks the farmer has a very hard row to hoe, — and it is not till the close of his life that he gets free from debt. When he dies, the same process has to be gone over again, and thus, about every generation, we send off four-fifths of our sons to the west, and then send four-fifths of the value of our lands after them. Now this is poor policy; and I sometimes wonder how it is that our farms are in any condition that is tolerable; for their worth, many times over has been sent away to the west. If, instead of this, our farmers would divide up their farms, and make every acre yield all that it can be made to yield, our towns would not have that appearance of age and decay which too many of them have. ‘Praise a great farm,’ says the immortal poet of Rome, ‘but cultivate a little one.’ I have noticed that men as

they grow old, seem to want more and more land, and seldom do you find a man who feels that he has enough. I know they talk of the fertility of the west, and the beautiful land to be found there. And I know, too, that a young man going out there, if he do not die under it, will in a few years become thrifty. And why? the process is easily described. He goes to the wilderness, purchases his land, lives in his log cabin, sleeps on the floor or more likely on the ground, eats upon a slab pinned up into the logs, and eats what comes to hand, wears what he can get, and so he lives, working early and late, and it would be wonderful indeed if he did not gain property. And so would he here. Let a young man take the poorest farm you can name, and labor on it as hard, and live just as he does at the west, for fifteen years, and he will be rich here. It is not so much the *land* that makes the difference, as it is difference in the manner of living, between the west and the east. I was struck while riding in the stage in listening to the conversation between two farmers, the one from Illinois, and the other from the state of Maine. The western man was describing his country, and the fertility of the soil, contrasting it with New England. ‘Why how much corn can you raise to an acre?’ says our man from Maine. ‘I can raise all of seventy bushels with all ease.’ ‘And how much do you get for it a bushel?’ ‘Nine-pence a bushel at my door.’ ‘Well,’ says the Maine farmer, ‘I can raise three hundred bushels of potatoes on my land, and get twenty cents a bushel at my door.’ ‘Aye, but you have to dig them.’ ‘True, and don’t you pick and then shell your corn, and after all get but twelve and a half cents, and only seventy bushels on an acre?’ I repeat, with the *same* economy, and the same industry, a young farmer here can get rich as easily as at the west. Whether they will practice equal economy and industry, is more than I can say. But let the fashion once prevail of having smaller farms and having them better cultivated, and you will be surrounded by your own sons, instead of large landholders, and a floating population who hire themselves out to cultivate it, and who own no land.

Another reason why our young men go to the west and leave us, is, that there is one period in a farmer’s life, which is a severe one for a Yankee to bear. I allude to a certain period in every farmer’s life, who does not inherit property, *when there is a severe struggle between thriftiness and poverty*. Every farmer has known that there is and must be such a period and such a struggle. Like a ship mounting up a high wave, every stick of timber seems to groan and creak, and for a moment, just as she is on the point of gaining

the top, she seems to hang, doubtful whether she will go up or down. Just so with a New England farmer. Those who get over this point, do well, and thrive, but how many sink away and never surmount it! Our young men, though they do not philosophise about it, know that such a time is before every young farmer, and rather than to meet it, they will go and meet it away from home, in the forests. It is not that they will not there meet it, as well as here; but it is, that they shall meet it away from home, and not under the gaze and the prophecies of their neighbors. Now what I want, is, that our young men should calculate to meet this period of twilight, and not feel that the moment it begins to come, they must pull up stakes and go to the west. I want, too, that those who have passed through this hard time, should encourage and aid others who are coming into it, and not encourage the young farmer to go off, and leave his land for you to purchase. It does and must come to this,—that if our farmers must have large farms which they do not half cultivate, we must have a thin population—we must send away the flower of our youth, we must have poor people who go out at day labor and get a precarious livelihood—we must have not so much raised by three-fourths in a given district, and we must have our farms mortgaged, and our farmers in debt.

One more reason why our young men emigrate—and that is, that farming is not looked upon as so reputable a business as it is, and as it ought to be. I know not why it is, or who set the fashion, that a feeling prevails with some, that farming is not as respectable employment as any that can be named. For myself, I attribute it to the fact, that with all their good qualities, farmers are not true to themselves in some respects. They do not cultivate their minds sufficiently. For example, some years ago, a student in his walks discovered a farmer laying a stone wall. This was in Milford, Cor. The stone which he was laying up, the student at once saw was marble. In a short time he discovered a splendid quarry, from which stones have since been worked. Now all the farmers in that place had been making walls of marble for forty years—and yet no one of them had the sagacity to discover it. But had they but a very small portion of a reading spirit, they would have seen it at once.

You have frequently seen men leave my profession and go to the farm,—and some indeed without leaving the profession. And they almost invariably, as you have noticed, succeed and grow rich. The reason is, that every particle of mind which is cultivated is of use in farming. It is a mistake to say that ignorance will do on a farm. Were Daniel Webster now to leave his public duties and go to farming, I should have no doubt

but he would succeed, and this, because he would bring his powerful mind to bear upon it; and it would be useful. I see that this is beginning to be felt, and that some of our farmers are beginning to read, to write, and to communicate their experience to their neighbors. And I wish this might become more and more universal. Let our farmers write, as some do, for the *New England* and the *Genesee Farmer*, and no one would hold any feelings towards the profession, except those of respect. Let the profession once be properly respected, and our young men will seek it. And the way, and the only way, to have respect, is to deserve it by having cultivation of mind. It is mind, and it always will be mind, that men covet more than all other things; and that can be obtained only by cultivation. You will not understand me to say that the farmer in New England is behind the rest of the community in general intelligence; all who have addressed a city audience and a country audience, know better. But I want to have the standard much higher than it now is.

I have other reasons for keeping our young men at home besides the good of New England. From my soul, I do wish we had ten times our present number of farmers! You know the history of the last year. It is decided that in our cities the mob rules, and the laws are cobwebs. It has been decided that to horsewhip a clergyman in the streets shall cost sixty dollars; for a black man to horsewhip the chairman of the selectmen, only thirty dollars; and for common men to destroy property and beat and kill one another, it shall cost nothing! Look forward, and what is before us! There is not a city in this land which the mob cannot rule when they please and as they please; and there is an end to law, when even a neighborhood chooses to nullify it. Who is surprised to read in a newspaper even innocent men are *Lynched*, as it is called, abused, degraded, dishonored, and yet no law will reach them to protect his life, or to punish the transgressors. There is one class of men upon whom we can as yet rely. It is the same class that stood on the little green at Lexington,—that gathered on the heights of Bunker Hill, and that poured down from the hills of New England, and which were the life blood of the nation when the English lion was ready to devour it—I mean the farmers of New England. They were never in a mob—they were never found trampling on law and right. Were I to commit my character to any class of men,—my life when in danger,—my family, and my country's safety, it would be to the farmers of New England. They are a class of men such as the world never saw, for honesty, intelligence, and Roman virtue, sweetened by the Gospel of God. And when this nation

quakes, they and their sons are those who will stand by the sheet-anchor of our liberties, and hold the ship at her moorings till she overrides the storm. Why cherish New England so? Why keep her sons on her soil? Because God has given her a heritage sufficient, and our sons need not wander away from the graves of their fathers. They may be free, independent, and rich here; and here they certainly will be virtuous and happy. Here sleep our fathers! names that need not to go to fable to become illustrious; no changes in time can obscure their glory! Shall we not love and stay by the land which contains the dust of such men! On these hills and through these valleys there ever will be industry and temperance, iron sinews and noble hearts; shall we not encourage our sons to stay and drink the pure waters and breathe the free air which God has poured over this soil? With her schoolhouses, her academies, and colleges, New England can never have any other than a cultivated mind—a population which will ever stand high in the scale of manhood, the whole world being judge. Her sons have already thrown a deathless glory over her, and I doubt not, will yet do wonders for the good of man. Think of these blue hills!—are there any like them? Think of these sweet brooks and valleys!—are there any like them? Think of these villages; these sons and daughters: think of these schools, these Sabbaths, with a ministry unchallenged the earth over, these temples of God so frequently blessed with the visits of the angel of mercy—think of New England as she has been—as she now is—as she may be!—and say where is the spot on the face of the earth, that will bear comparison with her! And where is a spot for your sons to spend their pilgrimage on earth so safely, so pleasantly, so usefully? O could I reach the ear of our young men in New England, I would say to them: Here is land enough—take it. Here is enterprise enough, and here is the sheet anchor of this nation; stay by the sepulchres of your fathers; stay by the soil which none but freemen may tread; stay by the fountain which is for the salvation of the land; and when you have covered our soil, and millions swarm here, then go out and seek other homes. But, above all, I would say, whether you stay here, or go away, remember that New England is your mother, and never act unworthy of your parentage!

[For Fessenden's Silk Manual.]

BOUNTY ON REELED SILK.

The Legislature of Massachusetts, at its last session, passed a law allowing a bounty of 50 cents on each lb. of silk reeled in the State, from cocoons produced by worms raised in the State; the act to continue in force two years. If the intention of the legislature was to encourage the reeling of silk, they have not adopted the mode

which, *under the circumstances, can be the least possible encouragement.* If there was already any considerable quantity of cocoons raised in the State, or even the means of making them, and they remained unreeled for want of skill only, such an act of the Legislature might induce persons to attempt the reeling of it. But the fact is, (and perhaps the Legislature were deceived in this particular,) there is not,—I speak the result of diligent inquiries made for the article, for the purpose of reeling,—there is not, as I think, one thousand pounds of cocoon made this year in the whole Commonwealth. That is probably a large statement. This would make from 100 to 125 lbs. of reeled silk, and if the whole were reeled and the bounty paid on it, it would draw from the Treasury the enormous sum of 50 to \$62 in bounty. But the above is, no doubt, an over-statement, and besides the silk is in the hands of small growers, who have from 10 to 20 lbs. Being referred to a man who was said to be one of the largest growers in one of the largest counties, I found on application that he had a crop of 4 bushels or about 40 lbs. Another man to whom I applied for 100 lbs. answered that so much was not raised in ten miles of country round. One person I have found to have about 100 lbs., perhaps the single instance in the State. Now the whole of this silk would not pay the price of ten reels, (the net profit of it reeled,) at a cost of \$25 a reel which is the price. And every man knows that the quantity cannot be materially increased in two years, for it must take that time, at least, after planting trees, to begin to feed the worms on them; and there not being trees planted in sufficient numbers to increase to any great extent the stock of cocoons, the expectant of the bounty must wait for his trees to grow. But, alas! so soon as he gets food for his worms, the act dies, and he cannot expect any encouragement in the shape of bounty on his reeled silk. I think I could safely engage to pay all the State bounty this year for \$20. The next it may be a little more. But if it were \$10,000 it would not encourage the reeling, for the reason stated, that it lasts only two years, and the necessary preparation can not be made in that time.

In the present state of the business, therefore, the bounty should be continued five years at least on reeled silk, and a premium should also be paid to the raiser, that is, a bounty on the cocoons, so that a supply should be raised with which the reeler may work.

The Legislature, besides, to encourage the early growing of trees, should have incorporated all companies asking for a charter, at the beginning of their late session in September. Then we might have had extensive plantations made this fall, which would have made a difference of a whole year in the use of the leaves over those planted in the ensuing Spring, as those then planted cannot be gathered in the next Spring after, but must be left alone for two years, while those now planted may be gathered in the second year.

It is to be hoped, if there is any serious intention of promoting the culture and reeling of silk in this State, that some different means will be adopted by the Legislature speedily for doing it, and that in the coming winter a change will be made more likely to effect the object.

BOWSER.

The Cambridge (Md.) Chronicle says, the crop of rice planted by Major Leary, near that place, has grown vigorously and matured completely.

The wood of the mulberry tree is used for many purposes. Being compact, pliant, and hard, and capable of receiving a good polish, it is sought by upholsterers, turners, and carvers.

[From the Highland and Agricultural Society of Scotland.]

ON THE POINTS BY WHICH LIVE STOCK ARE JUDGED.

BY MR JAMES DICKSON, CATTLE DEALER.

Were an ox, of fine symmetry and high condition, placed before a person not a judge of live stock, his opinion of its excellencies would be derived from a very limited view, and consequently from only a few of its qualities.

He might be pleased with the tint of its colors, the plumpness of its body, and the smoothness and glossiness of its skin. He might observe and admire the beautiful outline of its figure, for that might strike the most casual observer. He might be even delighted with the gentle and complacent expression of its countenance. All these properties he might judge of by the eye alone. On touching the animal with the hand, he would feel the softness of its body, occasioned by the fatness of the flesh. But no man, not a judge, could rightly criticise the properties of an ox farther. He could not possibly discover, without tuition, those properties which had chiefly conduced to produce the high condition in which he saw the ox. He would hardly believe that a judge can ascertain, merely by the eye, from its general aspect, whether the ox were in good or bad health; from the color of its skin, whether it were of a pure or cross breed; from the expression of its countenance, whether it were a quiet feeder; and from the nature of its flesh, whether it had arrived at maturity or no. The discoveries made by the hand of a judge might even stagger his belief.

He could scarcely conceive that that hand can feel a hidden property, — the touch, — which of all tests is the most surely indicative of fine quality of flesh, and of disposition to fatten. It can feel whether that flesh is of the most valuable kind; and it can foretell the probable abundance of fat in the interior of the carcass. In short, a judge alone can discriminate between the relative values of the different points, or appreciate the aggregate values of all the points of an ox. The parts of the ox by which it is judged are called "*points*."

We have thus seen that a person even totally ignorant of cattle may judge of some of the most apparent properties or points of a *fat* ox; but were a *lean* ox placed before him, he would be quite at a loss what opinion to pass on its present, and far more on its future condition. The outline of its figure would to him appear rugged and angular, and consequently coarse. To him the body would feel a number of hard bones, covered with a tough skin and coarse hair. A judge, on the other hand, can at once discover the good or the bad points of a *lean* as well as of a *fat* ox; because the proper

ties of the former are the same in kind, though not in degree, as those of the latter; and, in accordance with the qualities of these points, he can anticipate the future condition of the *lean* ox, save and excepting the effects of accidents and disease. But, it may be asked, if a judge of cattle is a character so easily attained as is here represented, how is it that the opinion of a judge is always held in deference and is always referred to in cases of difference of opinion?

This question admits of a very satisfactory answer. Errors in the judging of cattle arise not so frequently from not knowing the points to be judged of, as from judges allowing one or more of their favorite points the power of too great an influence over the future increasing condition of the ox; and as long as there are so many points to be considered, and as most of them may be partially altered by local circumstances, a difference of opinion may exist among judges of *lean* stock.

Now, what are those *points* of an ox, a thorough knowledge of which is so essential to constitute a perfect judge? Could they be described and illustrated with such precision, as that they may be applied at once to every ox, in whatever condition it may be, a great advancement would be made towards establishing fixed rules for the right judging of all the domestic animals. Fortunately for the suppression of human dogmatism on this subject, Nature herself has furnished rules for ascertaining points for judgment, which can only be discovered by long and constant practice. Nevertheless, I shall endeavor to describe them plainly, and after perusing the description, I hope my readers will perceive that they are established laws of nature; and therefore unerring and applicable to every species of cattle. Like other phenomena of nature, a knowledge of them can be acquired by observation. This knowledge is the most difficult which a farmer has to acquire, inasmuch as the management of live stock is a much more difficult branch of husbandry than the cultivation of corn. And although the importance of this knowledge is acknowledged by every experienced farmer, and a desire for its acquirement is strongly felt by every young one, it is remarkable that very little is said in professed works on agriculture on those rules which guide us in judging of *fat* or *lean* live stock.

The first *point* to be ascertained in examining an ox is the *purity* of its breed, whatever that breed may be. The ascertainment of the purity of the breed will give the degree of the disposition to fatten in the individuals of that breed. The purity of the breed may be ascertained from several marks.

The color or colors of the skin of a pure breed of cattle, whatever those colors are, are always

definite. The color of the bald skin on the nose, and around the eyes, in a pure breed, is always definite, and without spots. This last is an essential *point*.

When horns exist, they should be smooth, small, tapering, and sharp-pointed, long or short, according to the breed, and of a white color throughout in some breeds, and tipped with black in others. The shape of the horn is a less essential point than the color.

Applying these marks on the different breeds in Scotland, as illustrations of the points which we have been considering, we have the definite colors of white and red in the Short horns. The color is either entirely white or entirely red, or the one or the other predominates in their mixture. The skin on the nose and around the eyes is uniformly of a rich cream color. The Ayrshire breed in its purity is also distinguished by the red and white color of the skin, but always mixed, and the mixture consists of spots of greater or smaller size, not blended together. The color of the skin on the nose and around the eyes is not definite, but generally black or cream colored. In other points, those two celebrated breeds differ from one another more than in the characters which I have just described.

In the West Highland Angus and Galloway breeds, the color of the skin is mostly black in the animals of the purest blood, although red, dun, and brindled colors, are occasionally to be seen among them.

The black color of the skin of the nose and around the eyes is indicative of the pure blood of black colored cattle, but a cream colored nose may frequently be observed among the other colors of skin.

It would perhaps be hazardous to assert, in the case of the West Highlanders, that the characters above given are the only true indications of the pure breed, for their origin cannot now be certainly determined; but the characters given will certainly apply to the purity of the blood in the Short horn and Ayrshire breeds.

The second *point* to be ascertained in an ox is the form of its carcass. It is found, the nearer the section of the carcass of a fat ox, taken longitudinally vertical, transversely vertical, and horizontally, approaches to the figure of a parallelogram, the greater quantity of flesh it will carry within the same measurement.

That the carcass may fill up the parallelogram as well as its rounded form is capable of filling up a right-angled figure, it should possess the following configuration. The back should be straight from the top of the shoulder to the tail. The tail should fall perpendicularly from the line of the back. The buttocks and twist should be well filled out. The brisket should project to a line

dropped from the middle of the neck. The belly should be straight longitudinally, and round laterally, and filled at the flanks. The ribs should be round, and should project horizontally, and at right angles to the back. The hooks should be wide and flat; and the rump, from the tail to the hooks, should also be flat and well filled. The quarter, from the itch bone to the hooks, should be long. The loin bones should be long, broad, and flat, and well filled; but the space betwixt the hooks and the short-ribs should be rather short, and well arched over with a thickness of beef between the hooks. A long hollow from the hooks to the short-ribs indicates a weak constitution, and an indifferent thriver. From the loin to the shoulder-blade should be nearly of one breadth; and from thence it should taper a little to the front of the shoulder. The neck vein should be well filled forward, to complete the line from the neck to the brisket. The covering on the shoulder-blade should be as full out as the buttocks. The middle ribs should be well filled, to complete the line from the shoulders to the buttocks along the projection of the outside of the ribs.

These constitute all the *points* which are essential to a *fat* ox, and which it is the business of the judge to know, and by which he must anticipate whether the lean one, when fed, would realise.

The remaining points are more applicable in judging of a lean than a fat ox.

The first of the *points* in judging of a *lean* ox, is the nature of the *bone*. A round thick bone indicates both a slow feeder, and an inferior description of flesh. A fat bone, when seen on a side view, and narrow, when viewed either from behind or before the animal, indicates the opposite properties of a round bone. The whole bones in the carcass should bear a small proportion in bulk and weight to the flesh, the bones being only required as a support to the flesh.

The texture of the bone should be small grained and hard. The bones of the head should be fine and clean, and only covered with skin and muscle, and not with lumps of fat and flesh, which always give a heavy-headed appearance to an ox. The fore arm and hooks should also be clean and full of muscle, to endure travelling. Large joints indicate bad feeders. The neck of an ox should be contrary to that of the sheep: as the stall of the neck of the ox has no effect on the strength of the spine.

A full, clear, and prominent eye is another *point* to be considered; because it is a nice indication of good breeding. It is always attendant on fine bone. The expression of the eye is an excellent index of many properties in the ox. A dull heavy eye certainly indicates a *slow feeder*. A rolling

eye, shewing much white, is expressive of a restless capricious disposition, which is incompatible with quiet feeding. A calm, complacent expression of eye and face is strongly indicative of a sweet and patient disposition, and of course, kindly feeding. The eye is frequently a faithful index of the state of the health. A cheerful, clear eye accompanies good health; a constantly dull one proves the probable existence of some internal lingering disease. The dullness of eye, arising from the effect of internal disease, is, however, quite different in character from a natural or constitutional phlegmatic dullness.

The state of the skin is the next *point* to be ascertained. The skin affords what is technically and emphatically called, the *touch*, — a criterion second to none in judging of the feeding properties of an ox. The touch may be good or bad, fine or harsh, or, as it is often termed, hard or mellow. A thick, firm skin, which is generally covered with a thick set, hard, short hair, always touches hard, and indicates a bad feeder. A thin, meagre, papery skin, covered with thin silky hair, being the opposite of the one just described, does not, however, afford a good touch. Such a skin is indicative of weakness of constitution, though of good feeding properties. A perfect touch will be found with a thick, loose skin, floating, as it were, on a layer of soft fat, yielding to the least pressure, and springing back towards the fingers like a piece of soft, thick chamois leather, and covered with thick, glossy, soft hair. Such a collection of hair looks rich and beautiful, and seems warm and comfortable to the animal. It is not unlike a bed of fine soft moss, and hence such a skin is frequently styled “mossy.” The sensation derived from feeling a fine touch is pleasurable, and even delightful to an amateur of breeding. You cannot help liking the animal that possesses a fine touch. Along with it is generally associated a fine symmetrical form. A knowledge of touch can only be acquired by long practice; but after having acquired it, it is of itself a sufficient means of judging of the feeding quality of the ox; because, when present, the properties of symmetrical form, fine bone, sweet disposition, and purity of blood, are the general accompaniments.

These are the essential *points* of judging *lean* cattle; but there are other and important considerations which must claim the attention of the judge, in forming a thorough judgment of the ox.

The *proportion* which the extremities bear to the body, and to one another, is one of these considerations. The head of the ox should be small, and set on the neck as if it appeared to be easily carried by the animal. This consideration is of great importance in shewing cattle to advantage in market. The face should be long from the

eyes to the point of the nose. No face can be *handsome* without this feature. The skull should be broad across the eyes, and only contract a little above them, but should taper considerably below them to the nose. The muzzle should be fine and small, and the nostrils capacious. The crown of the head should be flat and strong, and the horns should protrude horizontally from both sides of it, though the direction of the growth from the middle to the tip varies in the different breeds. The ears should be large, stand a little erect, and so thin as to reflect the sunlight through them. The neck should be light, tapering from the front of the shoulder and neck vein, with a gradual rise from the top of the shoulder to the head. The length of the neck should be in proportion to the other parts of the animal; but this is a non-essential point; though I would prefer an apparently short neck to a long one, because it is generally well covered with the neck vein.

A droop of the neck, from the top of the shoulder to the head, indicates a weakness of constitution, arising frequently from breeding too near akin. The legs below the knee should be rather short than long, and clean made. They should be placed where they apparently bear the weight of the body most easily, and they should stand wide asunder. The tail should be rather thick than otherwise, as thickness indicates a strong spine and a good weigher. It should be provided with a large tuft of long hair.

The *position* of the *flesh* on the carcass is another great consideration in judging of the ox, the flesh on the different parts of the ox being of various qualities. The part called the spare-rib in Edinburgh, and the fore and middle ribs in London, the loins, the rump or hook bone, are of the finest quality, and are generally used for roasts and steaks. Consequently the ox which carries the largest quantity of beef on these *points* is the most valuable. Flesh of fine quality is actually of finer texture in the fibre than coarse flesh. It also contains fat in the tissue between the fibres. This arrangement of the fat and lean gives a richness and delicacy to the flesh. The other parts, though not all of the same quality, are used for salting and making soups, and do not fetch so high a price as the parts just described.

A full twist lining the division between the hams, called the “closing,” with a thick layer of fat, a thick flank, and a full neck vein, are generally indicative of tallow in the interior of the carcass; but it frequently happens, that all these symptoms of laying on internal fat fail. The disposition to lay on internal fat altogether depends on the nature of the individual constitution; for, it is often observed, that those individuals which exhibit great fattening *points* on the exterior, do not fill with internal fat so well as others which

want these points. On the contrary, thin made oxen, with flat ribs, and large bellies, very frequently produce large quantities of internal fat.

The first part which shows the fat in a feeding ox, is the point or top of the rump, which, in high bred animals, is a prominent point; sometimes it protrudes too much, as the mass of *fat* laid on there is out of proportion to the *lean*, and therefore useless to the consumer. This is the part which frequently misleads young or inexperienced judges in the true fatness of the ox, because fat may be felt on this part, when it is very deficient on most of the other points.

The parts, on the other hand, which are the last in being covered with flesh, are the point of the shoulder joint, and the top of the shoulder. If these parts are, therefore, felt to be well covered, the other and better parts of the animal may be considered ripe. Ripeness of condition, however, can only be rightly ascertained by handling, for there is a great difference between the *apparent* and *real* fatness of an ox. The flesh of an apparently fat ox to the eye, may, on being handled by a judge, feel loose and flabby, but a truly fat ox always feels "hard fat." With such the butcher is seldom deceived, while loose handlers give no assurance of killing well.

It is proper, in judging of the weight of a fat ox, to view his gait while walking towards you, which will, if the ox has been well fed, be accompanied with a heavy rolling tread on the ground. In this way a judge can at once come very near to its weight.

The application of all these rules and considerations to the judging of *lean* stock, constitutes the chief difficulty to the judge. An ox, in high condition, in so far as its condition alone is under consideration, can be judged of, as we have seen, by any one; and sometimes the fatness may be so great as obviously to deform the symmetry to any observer.

The superiority of a judge to others, in these cases, consists in estimating the weight, observing the purity of the blood, and valuing the points of the animal.

But in judging of a lean ox, its future condition and symmetry must be foreseen. The rules which I have attempted to describe, will, if studied practically, enable an inquiring observer to foresee these points: and in judging between a number of valuable points, it should be remembered, the purity of breeding will always insure aptitude to fatten, which, in its turn, will insure the largest remuneration for the food consumed.

Sheep, both fat and lean, may be judged of by nearly the same rules. The purity of breeding will be seen in the large, full, prominent eyes, the clean thin bone of the head and legs, and the large, thin, pricked up ears, set on each side of

the top of the head, and in the short, thick, smooth, clear hair of the face and legs.

The section of the form of the fat sheep is even more mathematically like a parallelogram than that of the fat ox. The touch of the skin is also the same in kind, and is as sure an indication of the disposition to fatten as in the ox. In regard that wool varies so greatly in the many breeds of sheep, I can only make this general remark on the fleece best suited to every breed, namely, the whole body should be well covered with wool, with the exception of the face and legs, which are always covered with hair. A large covering of wool, not only protects them against the inclemencies of the weather, and the coldness and dampness of the ground, but it supplies a large fleece to be disposed of to the wool buyer. One deviation from the rules of judging cattle, must be made while judging sheep, to which I have already alluded, namely, while the neck of the ox should be thin, that of the sheep should be thick; because a thin necked sheep is found to possess a weak spine, and is generally a bad feeder. A thin neck has thus the same effect on sheep that a small tail has on cattle. As in cattle, a drooping neck in sheep indicates a weakness of constitution, arising from breeding in and in.

Some of the rules for cattle and sheep are applicable to swine. Swine should have broad straight backs, round ribs, thin hair, thin skin, small tails, short and fine muscles, pricked ears, small and fine bones, and round and well turned shoulders and hams.

In conclusion, it is obvious that the rules for judging live stock are not founded upon arbitrary assumptions. Had no *natural* means of judging existed, man could no doubt have contrived rules to suit his own convenience; and in such a case, he would probably have chosen such as he could have most easily applied; but unless they could be applied to *growing* as well as the *mature* condition of animals, they would be of little value.

But we have seen that natural means of judging do exist, and although they cannot be easily understood without much observation and practice, yet, by practice, they can be acquired, and easily applied to the existing circumstances of the animal, whatever these may be. Any person, it is true, cannot at once perceive that their necessary tendency is to lead to a correct judgment. Long and careful personal observation is requisite to convince the mind of their value in that respect. Tuition, without practical observation, cannot of itself do it. It has been the study of nature, in short, which enabled men to establish these rules for his guidance; and as all the operations of nature are regulated by general laws, these rules must be of universal application. It is clearly established by observation, as an uniform princi-

ple of judgment, that when an ox, in a growing state, presents a certain degree of purity of breeding, a certain form of body, and a certain kind of handling of its skin, a certain result is undeviatingly exhibited in the mature state from these given premonitory symptoms. Should this result conduce to the acquisition of wealth, we are anxious to possess the growing animal which exhibits such favorable points; and, on the other hand, we are as anxious to avoid the possession of that animal which exhibits unfavorable points, unless at a very depreciated value. Now, it has been ascertained by experience, that pure breeding, perfect form, and fine touch, make the best mature animal. Hence *these points* will insure both the growing and the mature animal a ready market and a good price; and hence also, that breed which constantly presents these points, deserves, by its intrinsic worth, to be generally cultivated.

[From the Providence Journal.]

RHODE ISLAND SILK COMPANY.

Having watched with intense interest during the past year the incipient operations in the growth and manufacture of silk in this city, and having at different periods given descriptions of the machinery connected with its manufacture, which have been extensively copied, we could not have believed, had he not told us so, that any editor in our own neighborhood could have been "informed," within the last fortnight, "that several important improvements have been made recently in the looms for weaving silk, and that it is calculated, as soon as a sufficient quantity of cocoons can be obtained, the weaving of silk will be prosecuted on a more extensive scale than has been done heretofore in this country." But this is the language of one of the New Bedford papers, the Mercury we believe, while, in the same village where it is printed, the factory of Joseph Rotch, Esq. is turning out goods equal to the best Italian silk. If the editor has any fondness for beautiful machinery, perfect in its operation—if he would behold the manufacture of the most delicate material brought at once, without experience, to a high degree of perfection by the ingenuity and perseverance of a single mechanic—if he would love to contemplate the brightest prospect of wealth and comfort that has ever dawned upon the people of the United States, we commend him to a view of that establishment. The machinery which he will there find in operation was invented by Gamaliel Gay, whose name our country will ultimately have occasion to record among those of its most distinguished benefactors.

But we find there are many persons, men of business, among us, who are as unenlightened upon this subject as they were before it had

become one of such engrossing interest; and some, who have expressed surprise on being recently informed that there was a Silk Factory in the very midst of our city. To such persons then, if they will take the trouble to read it, a history of the plans and operations of the "Rhode Island Silk Company," which was late the "Valentine Silk Company," was incorporated at the recent session of our Legislature, with a capital of \$100,000. Their factory is situated upon Eddy Street, the next building to the old glass house. The machinery, with which it is nearly filled, is propelled by a six horse power steam engine. The steam is generated with the siftings of anthracite coal, at an expense of 33 cents per day. This, till recently, useless and refuse portion of the coal, is ignited and rendered about as valuable as any other, by the aid of Reynold's patent blowing apparatus.—While preparing their machinery and instructing their operatives in the art, they have manufactured from 16 to 1800 yds. of rich, heavy goods. The number of hands has recently been very much increased, and, with the additional power looms about to be put in, the company contemplate making from 300 to 400 yards of goods per week. Of course, as there is no domestic supply, they are compelled to manufacture foreign silk. Another year, however, they will probably derive a considerable amount of the raw material from their own plantation. This plantation is on the western border of the city, and consists of thirty six acres of land particularly well adapted to the growth of the mulberry tree, and is already in a high state of cultivation. Upon it there is a large well finished two story house, and a barn and granary—a cocoonery 150 feet long, built last spring, and about 16,000 mulberry trees of very vigorous growth, most of which are five years old, and the remainder four. From these trees it is estimated that an average amount of at least 2000 pounds of wound silk may be produced per year, for the next five years, or two ounces to a tree—and for the succeeding five years double the amount. This is a moderate estimate compared with the one made by the Boston Company, and, indeed, compared with the results of experience, of those who have been engaged in growing silk in Connecticut for many years. The company are about putting out 40,000 more trees, of three years' growth, in hedges, after the Italian mode. These, it is estimated, will yield an average rate of one ounce of wound silk to a tree per year. The total product of the farm in silk, according to this estimate, would be worth, at four dollars per pound \$18,000. One half of this amount is allowed for attendance upon the cocoonery and winding the silk into a marketable state, leaving a nett profit of \$9,000. In addition to this ought to be reckoned the value

of the crops of corn and potatoes which the best condition of the trees will require should be planted among them. With a liberal application of fish, which abound, as a manure, within less than a mile of the farm, it may, beyond doubt, be rendered much more productive than, in the above calculations, is anticipated, and by planting in hedge rows 100,000 more trees, which it is competent to sustain, it would of course yield a manifold increase of silk. On one side of the farm is a beautiful pond, from which the trees may be watered, by the aid of a force pump, in any period of drought.

The whole establishment of this Company is now in fine order, and is judiciously located and well arranged for the purpose of exhibiting to our farmers and manufacturers the mode of operating this important branch of business. The soil of Rhode Island is well adapted to the growth of the mulberry tree, and the very borders of the roads may be appropriated to this use. There can hardly be a limit assigned to the amount of wealth which would accrue to this State, should its population be generally engaged in the cultivation and manufacture of silk. We have taken much pains to ascertain, from persons long acquainted with silk growing in Connecticut, what are the actual profits of the tree, and it is our purpose to give the results of our inquiries at another time.

[From the New England Farmer.]

QUERIES RELATIVE TO THE CULTURE OF THE MULBERRY, &c.

MR FESSENDEN:—

I have on my farm in Worcester county, about sixteen acres of what is commonly called brush pasture, on which I design to plant mulberry trees, as soon as it can be properly prepared. The soil is a sandy loam by no means poor; and, with the exception of here and there a spot, free from stones—producing white birches, from the size of a riding stick to four or five inches in diameter; and a few white oaks of about twenty years' growth, some of which are full twelve inches through.

Having had little experience in this business, and being in immediate want of information, I am induced to solicit it, through the medium of your excellent journal; and I have no doubt that you, Sir, or some of your more experienced correspondents, will afford me just the assistance I need, by publishing the best method of destroying the birch, and preparing the land for the reception of the mulberry trees. AN INQUIRER.

By the Editor.—A very good mode, as we should suppose, of clearing land of bushes, was originally published in the Baltimore Farmer, and republished in the New England Farmer, vol. xii. p. 334. It is as follows:—

“*Grubbing.*—The manner in which I cleared a piece of ground grown up with bushes and undergrowth of various sizes, from three to ten feet high, was with a pair of oxen and a chain of ten or twelve feet long, with one end attached to the yoke, and forming a noose with the other around as many of the sprouts as could be encompassed by it, which, when thus made fast, they drew out by the roots with great ease; it was in the Spring, while the ground was yet loose; it is probable the operation would not be so easy when the ground is dry and hard. Two active boys of fifteen years of age, will clear more ground in this way than ten men will grub out in the ordinary method with mattocks.”

With regard to preparing the land and the culture of the mulberry, Mr Cobb says: “The ground should be ploughed the preceding fall, and again ploughed two or three times in the spring, and made light and friable; two or three dressings, with manure well ploughed in, would be of essential service; the ground may be levelled with a hoe or rake, and the seed sown in drills about the first of May, much in the same way as our farmers sow carrots. The weeds must be carefully destroyed, and in dry times watering will be beneficial.” [See “Cobb’s Silk Manual,” pp. 12, 13.]

Mr Kenrick says:—“The seeds of the mulberry are obtained by washing the bruised pulp of thoroughly ripe fruit; they are carefully dried, and sown early in May, in a rich, fresh, and well prepared soil, in drills or rows two feet asunder, and at an average distance of about an inch. Cover the seed but half an inch deep, and stamp or roll the ground immediately, that the earth may retain sufficient moisture at its surface, &c. [See “Kenrick’s American Silk Grower’s Guide,” p. 37, &c. Also “Fessenden’s Silk Manual,” p. 86.]

For transplanting mulberry trees for standards, hedges, &c. the same works may be consulted, and as they are short it is not necessary to refer to particular pages.

The Northampton Republican says:—“We understand that Mr William Clark, Jr., of this town, has contracted to plough upwards of two hundred acres for the Silk Company. Mr C. has in use several of “Howard’s Hingham Ploughs,” which do the work well, and require less team than any in use.

We understand (says the Pawtucket Chronicle) that a gentleman of the South has purchased part of Seekonk Plains, and intends to cultivate it for the purpose of raising mulberry trees. He will set out sixty thousand trees in the Spring.

The surplus revenue at this moment in the Treasury of the United States is just about sixteen millions.

RAISING COCOONS.

The people in many parts of New England, in fact of many of the other States, are turning their attention to this lucrative business. The Northampton Courier is zealous in the cause, and recommends that the Silk business be prosecuted in this country, by having it systematized as in France and Italy. Raising the cocoons is one branch, and not an expensive, but rather a simple process. Mulberry trees can be had at a trifling cost, and when two or three years old, will furnish abundant food for worms. They need occupy no ground which could be appropriated to other uses. They can be planted by the sides of fences in rows all about a farmer's homestead. Even planted so close as to form an impervious and beautiful hedge — a valuable substitute for wooden fences.

When the worms are hatched from the eggs, a portion of the barn or wood-house can be appropriated to feeding them. About six weeks only are occupied in the process, and the leaves can be plucked, and all needed attentions given the worms, by young boys or girls, with very little experience. After the feeding is over, and they begin to wind their cocoons, they require no farther attention. The work is infinitely more agreeable, as well as lucrative, than the sedentary employment of covering buttons, or even working palm leaf hats or straw braiding.

When the cocoons are wound, they can find a ready cash market. The large establishments which are coming into existence in this country, both for raising worms and for winding and weaving the silk, will consume more than can be had for twenty years. In France and Italy, the leaves are furnished by one class of persons, another buys them and feeds the worms, while others purchase the cocoons and wind them for a fourth class, who manufacture the silk.

Cocoons are sold as other commodities are, carried into market by the peasantry every morning, where purchasers are ever ready to secure a good article. We earnestly urge upon every farmer to plant mulberry trees and furnish a healthy and lucrative employment to his little ones.—*Bangor Mechanic and Farmer*.

PROVIDENCE SILK MANUFACTURING COMPANY.—This Company, which was late the "Valentine Silk Company," was incorporated at the recent session of our Legislature, with a capital of \$100,000. Their factory is situated upon Eddy street, the next building to the old glass house. The machinery, with which it is nearly filled, is propelled by a six horse power steam engine. The steam is generated with the siftings of anthracite coal, at an expense of 33 cents per day. This (till recently) useless and refuse portion of the coal, is ignited and rendered about as valuable as

any other, by the aid of Reynold's patent blowing apparatus. While preparing their machinery and instructing their operatives in the art, they have manufactured from 16 to 1800 yards of rich, heavy goods. The number of hands has recently been very much increased, and with the additional power looms about to be put in, the company contemplate making from 300 to 400 yards of goods per week. Of course, as there is no domestic supply, they are compelled to manufacture foreign silk. Another year, however, they will probably derive a considerable amount of raw material from their own plantation. This plantation is on the western border of the city, and consists of thirtysix acres of land particularly well adapted to the growth of the mulberry tree, and is already in a high state of cultivation. Upon it there is a large well finished two story house, and a barn and granary — a cocoonery 150 feet long, built last spring, and about 16,000 mulberry trees of very vigorous growth, most of which are five years old, and the remainder four. From these trees it is estimated that an average amount of at least 2000 pounds of wound silk may be produced per year, for the next five years, or two ounces to a tree — and for succeeding five years double the amount. This is a moderate estimate, compared with the one made by the Boston Company, and, indeed, compared with the results of experience, of those who have been engaged in growing silk in Connecticut for many years. The company are about putting out 40,000 more trees, of 3 years' growth, in hedges, after the Italian mode. These, it is estimated, will yield an average rate of one ounce of wound silk to a tree per year, for the next five years, or 2500 pounds per year. The total product of the farm in silk, according to this estimate, would be worth, at four dollars per pound, \$18,000. One half of this amount is allowed for attendance upon the cocoonery and winding the silk into a marketable state, leaving a nett profit of \$9,000. In addition to this, ought to be reckoned the value of the crops of corn and potatoes, which the best condition of the trees will require should be planted among them. With a liberal application of fish, which abound, as a manure, within less than a mile of the farm, it may beyond doubt be rendered much more productive than in the above calculations is anticipated, and by planting in hedge rows 100,000 more trees, which it is competent to sustain, it would, of course, yield a manifold increase of silk. On one side of the farm is a beautiful pond, from which the trees may be watered, by the aid of a force pump, in any period of drought.—*Providence Journal*.

Ripe Tomatoes sliced up, and fried in butter, are to many quite delicious.

BRIGHTON MARKET,—MONDAY, DEC 5, 1835.

Reported for the Daily Advertiser & Patriot.

At Market 2725 Beef Cattle, 250 Stores, 2800 Sheep, 1100 Swine—Several lots of Beef Cattle, and about 340 Swine, were at market last week.

PRICES—*Beef Cattle*—A decline has been submitted to, probably occasioned by the large number at market, we quote a few choice at 31s 6d prime at 30s good 26s; a 2s; two and three year old at 17s a 24s.

Barrelling Cattle—Dull. Many lots were barrellled by the Drovers. Some of the Barrellers have closed their fall business, and others unwilling to purchase heavy. We reduce our quotations to conform to sales; 23s a 24s for mess; 20s a 21 for No 1 and 17s 18s for No 2.

Stores—Dull. Yearlings at \$4 a 5; two year old 6 50 a 13; three year old \$12 a 21.

Sheep—We notice sales at 9s 3d; 10s, 6d, 12s 13s 6d 16s 6d. 18s and 19

Swine—Dull. The market appears to be completely glutted; no lots were sold, for good reason, there were no purchasers at reduced prices; few lots were retailed at very uneven prices; viz. 4 1-2 a 5 1-2 for sows, and 5 1-2 a 6 1-2 for barrows.

VALUABLE NEW WORK ON SILK

American Silk Grower's Guide, is this day published at the office of the New England Farmer—being the art of growing the Mulberry and manufacture of Silk on the system of successive crops each season—by WM. KENRICK, author of the New American Orchardist; 112 pp. price 42 cents, neatly bound in cloth. Booksellers and traders supplied on favorable terms. **GEO. C. BARRETT.**

FARM FOR SALE.

Situated in Leominster, County of Worcester, on the main road midway between the towns of Leominster and Fitchburg and lately occupied by Mr Henry Jackson, deceased. Said Farm contains about 76 acres of land, and has on it a house and barn in good repair, an orchard, good pasturage and wood lot. For further information apply to Mr Benjamin Peirce, near the premises — or

DR. J. B. S. JACKSON,

Dec. 9 5t No. 6, Bedford Place.

FARM TO LET IN MEDFORD

About 5 miles from Boston; containing 40 acres of excellent Land, well adapted to mowing, tillage and pasturage. Said farm has been heretofore improved as a milk farm.

Apply to Luther Angin, near Medford Bridge.

N. B. Adjoining the above farm is about the same number of acres of similar land, which may be had on application to

NATHAN ADAMS, Esq.

Medford, Nov. 26. 1835. if

Subscriptions and payments to the Silk Manual will be received by the following named

AGENTS.

- New York—G. C. THORBURN, 11 John-street.
- Albany—WM. THORBURN, 347 Market-street.
- Philadelphia—D. & C. LANDEBETH, 35 Chesnut-street.
- Baltimore—Publisher of American Farmer.
- Cincinnati—S. C. PARKHURST, 23 Lower Market-street.
- Flushing, N. Y.—WM. PRINCE & SONS, Prop. Lin. Bot. Gar.
- West Bradford, Mass.—HALE & Co. Booksellers.
- Middlebury, Vt.—WIGHT CHAPMAN, Merchant.
- Taunton, Mass.—SAM'L O. DUNBAR, Bookseller.
- Hartford—GOODWIN & Co. Booksellers.
- Newburyport—ERENEZER STEDMAN, Bookseller.
- Portsmouth, N. H.—JOHN W. FOSTER, Bookseller.
- Woodstock, Vt.—J. A. PRATT.
- Bunger, Me.—WM. MANN, Druggist.
- Hilifax, N. S.—P. J. HOLLAND, Esq. Editor of Recorder.
- St. Louis—GEO. HOLTON

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES, Russetts and Baldwins.	barrel	1 50	1 75
BEANS, white,	bushel	1 25	1 75
BEEF, mess,	barrel	10 60	10 50
Cargo, No. 1.	"	8 00	8 50
prime,	"	6 50	7 00
BRESWAX, (American)	pound	25	27
BUTTER inspected, No. 1,	"	17	23
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	46	50
southern, geese,	"	42	45
FLAX, American,	"	9	10
FISH, Cod,	quintal	2 75	2 87
FLOUR, Genesee, cash	barrel	7 70	7 75
Baltimore, Howard street,	"	7 62	7 75
Baltimore, wharf,	"		7 50
Alexandria,	"	7 50	7 62
GRAIN, Corn, northern yellow	bushel	1 17	1 18
southern yellow	"	1 13	1 14
white,	"	1 12	1 13
Rye, northern,	"	95	1 00
Barley,	"	90	1 00
Oats, northern, (prime)	"	60	62
HAY, best English, per ton of 2000 lbs		22 00	25 00
eastern scrawed,	"	20 50	21 00
hard pressed,	"	20 00	22 00
HONEY,	gallon		
Hops, 1st quality	pound	13	14
2d quality	"	10	11
LARD, Boston, 1st sort,	"	12	12
southern, 1st sort,	"	11	12
LEATHER, slaughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	19	21
do. upper,	"	18	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	1 10	1 12
PLASTER PARIS, per ton of 2200 lbs.		3 00	3 50
PORK, Mass. inspect. extra clear,	barrel	20 00	21 00
Navy, mess,	"		
bone, middlings, scarce,	"		
SEEDS, Herd's Grass,	bushel	2 25	2 50
Red Top,	"	75	90
Red C over, northern,	pound	10	11
SILK COCOONS, (American)	bushel	2 75	3 00
TALLOW, tried,	cwt.	8 50	9 00
WOOL, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	65
do. 3-4ths do.	"	55	58
do. 1-2 do.	"	37	42
do. 1-4 and common	"	40	45
Native washed	"	38	60
Northern pulled. { Pulled superfine,	"	55	60
{ 1st Lambs,	"	50	53
{ 2d do.	"	40	41
{ 3d do.	"	30	35
{ 1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

		RETAIL PRICES.	
HAMS, northern,	pound	12	12
southern, none,	"	11	12
PORK, whole hogs,	"	7	8
POULTRY,	"	10	11
BUTTER, (tub)	"	18	23
lamp	"	22	25
EGGS,	dozen	25	25
POTATOES,	bushel	30	40
CIDER,	barrel	1 25	1 75

ORDERS FOR PRINTING RECEIVED BY THE PUBLISHER.

FESSENDEN'S SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I.

BOSTON, JANUARY, 1836.

NO. 9.

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BOSTON, JANUARY, 1836.

FACTS AND OBSERVATIONS RELATIVE TO THE CULTURE OF SILK.

Extracts from "*Notes on the Growth and Manufacture of Silk in the United States.*" By M. GENET, former Ambassador from France to the United States.

"It is a matter of fact that the planting and attending to mulberry trees, either in orchards or hedges is the hardest part of the silk culture; and that the rest of the process, which occupies only the fifty or sixty days to which the life of the silk worm is limited, may be conducted by females, children, and old or invalid men, unable to perform hard labor on any farm or plantation, and will accordingly offer a new gain without impairing the other sources of income. It is proper for legislators to consider, that the more the science of mechanics, applied to manufactures substitutes machines for manual labor, the more it is useful to supply the females of our country, whose number is everywhere superior to the number of men with the means of supporting themselves, or the families that support them, and that no occupation besides the spinning of flax, and its manufactures, not yet entirely conquered by mechanics, seems to be better calculated to employ the time of that supernumerary part of the population than the culture of silk.

"It will certainly be a great while before a sufficient quantity of silk can be raised in the United States to become an article of exportation,

or to supply even the few silk manufactures of our own country, which now import the whole of their materials. But, if the Italians, who first cultivated the silk worms in the year 1455, from seeds brought with a great deal of trouble and care to Rome, by two missionary Monks returned from the East Indies, had been indifferent about the domestic growth of silk, valued at that time almost as much as gold; and if the French, the English, and all other European nations who have acquired wealth by the culture of that article had not by bounties and rewards promoted at first its introduction, and afterwards protected its extension by various laws, no other silks, to this day, would be worn, but those imported from China and the East Indies. Comparatively speaking, we are now in America, in reference to silk, several centuries behind the other manufacturing nations. That commodity, whether we import it from India, China, or Europe, is for us an immense absorbant of our substance, and the sooner we prepare the means of stopping, effectually, that drain through which a great quantity of bullion escapes from the vaults of our banks, the better it will be for the progress of our wealth and prosperity at home.

"The growth of raw silk in a merchantable state, requires hardly any capital, and it occupies but very little land and very little room.

"An ounce of seed of the silk worm will produce 40,000 worms that will consume one thousand pounds of white mulberry leaves, easily supplied by fifty grown trees, or two hundred small ones, between two and three years old, from the seed or from the slips; and the produce in silk will be upon an average, twelve pounds of drawn raw silk, allowing all contingencies.

"A small hedge that will occupy the twentieth part of an acre, being planted with bushes not more than three years old, as aforesaid, will supply and accommodate 100,000 worms, the produce of which will be thirty pounds of raw drawn silk, and if the whole acre is planted in the same way, the produce will be six hundred pounds; which

merely spun into sewing silk, would amount, at the present price of American sewing silk in Albany, to three dollars per pound, sixty feet to the skein, and one dollar and fifty cents per thirty feet.

"If the worms are housed instead of being raised in the open air it is reckoned that a square foot will contain, with ease, one hundred and ten worms in their maturity; accordingly a shelf twenty feet long and three broad, will contain 6,600 worms, its surface being equal to sixty feet, and a set of such shelves will accommodate the 40,000 worms, produced by a single ounce of seed. These sets of shelves may be multiplied in the same room, observing only to leave three feet opening between them, in order to enable the attendants to nurse the worms. Besides such a room, in which several millions of worms may be raised, it is sufficient to have an adjacent room or hovel to put the worms into when they want to make them ball and spin their silk; so that two rooms will be sufficient to spin an immense quantity of silk.

QUALITY OF MULBERRY LEAVES.

The Abbe Rozier, a celebrated French writer in a work entitled "Cours Complet d'Agriculture," in treating of the mulberry, &c., observes that "The quality of the leaves of the mulberry is affected by various circumstances. 1. The age of the plants. The leaves of a young tree are more watery, the juices less concentrated than in an old one.

The exposure has also great effect. Trees planted in a northern exposure or aspect are always below modicrity, or inferior in quality; the juices are too watery, and the worms do not thrive so well on them. Those raised on hill sides with southern exposure are preferable to those grown on plains.

"The berries gathered for seed cannot be *too ripe*. When they are just barely fit for eating, not more than fourteen per cent. will vegetate. When fully ripe and ready to fall more than half the seed have usually grown; if left till dry, nearly all have succeeded. The mode of obtaining the seed is to dry the berries, and when wanted, to rub out the seed, and fan away the dried pulp."

As to the time of sowing: In the most southern parts of France they sow as soon as the seed is ripe, but the most usual course is to sow the following spring. In France, according to the climate of different provinces, in February, March, and April. In New England we cannot sow till April or May.

5. The manner of sowing. — They sometimes sow in the spot where the young mulberry is to

grow for the first three years; but they prefer sowing them in boxes about three feet long, and nine inches deep. The reason assigned is, that they are more easily watered and sheltered against frost. They remove them from the boxes into rows in a nursery, which is done without injury to the roots, by taking off one of the sides of the box. Rozier remarks upon the practice of rubbing the berries on a hair rope and then burying it in the earth, that it is an useless complication of labor.

The French seem to be in the constant practice of grafting their mulberries. No satisfactory reason seems to be assigned for this certainly expensive process; but as they are very familiar with the cultivation, no doubt experience must have shown them an advantage, or the French, being habitual economists, would not have adopted it.

It was formerly the practice in France to plant out the mulberry as standards, and to suffer them to attain a considerable size, taking care, however, so to manage the pruning as to keep all the limbs within the reach of gathering ladders. The practice is of late much changed. It was observed, says Rozier, that the young plants in nurseries put forth their leaves much sooner than the standard trees, and the necessity of obtaining early food for the young insects obliged the cultivators to provide themselves with a *certain number* of mulberries in the bush or shrubby state.

From these first experiments arose the prevalent practice of raising dwarf mulberries extensively, and also of surrounding their fields with mulberry hedges. It is said that the produce of an acre in dwarf mulberries is much greater than one in large trees, the distance between the plants being so much less, so that the number of dwarfs may be eight times as great. This is admitted to be true at first, but some cultivators deny that it continues to be so after the standard trees have attained their full size. The benefits of the dwarf cultivation are thus briefly stated:—1st. Women and children can gather the leaves without danger, and much quicker than the most experienced gatherers could on large trees. 2d. The proprietor is much more speedily repaid his advances. 3d. The dwarf mulberries put forth their leaves earlier, a valuable quality, as the more early the worms are produced the better. 4th. Dwarf trees will succeed in situations in which standards will not. 5th. Their leaves are quite as good as those of the others, but the leaves of young plants should be given to newly hatched worms, and those of the older to the more mature.

INFLUENCE OF SILK CULTURE ON HEALTH.

In urging upon the community, and especially farmers and their wives and daughters, to engage

in the culture of silk, fidelity and good faith requires of us that we do not conceal the fact, that some antagonist writers on the subject, have maintained that the atmosphere of a cocoonery is injurious to the human constitution, and the generator of disease and death. They have claimed, and truly, that the pestilential air of a cocoonery, when a close room is occupied as such, is deleterious to the health of the feeders, and especially to infants that are nursed by mothers or nurses thus employed. In proof of this they have said that for many years it was noticed that large numbers of infants died annually in the silk growing countries, particularly at Tiers, Narbonne, Castrie, &c. where multitudes of silk worms are fed by mothers; and hence they have concluded, and rationally, that the mother communicates a fatal disease to her infant in the impurities of the nutriment on which it subsists. It has also been remarked that simple wounds, whether on men or women thus employed, have become ulcers not only painful but incurable.

These disastrous consequences, which were formerly of frequent occurrence, have been carefully investigated, and their causes satisfactorily ascertained. It was found that they invariably occurred in the establishments of the opulent, while those of the poor were wholly exempt from them. In the poorest villages, where the crevices in the covering of the huts of the inhabitants furnished ample ventilators, large and certain crops were found to be made; while in the close covered dwellings of the rich, they were rarely found. In the huts of the poor it was found that the inmates were in good health, even to the infants, while the rich were diseased and their nurslings sick and dying.

These facts furnish the most indubitable evidence that both the worms and their attendant's will contract disease from the exhalations of the excrements and litter, if they be suffered to remain in a close room even for a few hours—and, on the contrary, they as satisfactorily prove, that if they be regularly and seasonably removed, and the room well ventilated, both will enjoy good health. It is wisely ordered in the economy of Providence, that cleanliness and pure air are as essential to the health of the worm as to the health of its attendant—and hence what contributes to the comfort and enjoyment of the one in like manner does to the other.

The preparation of food for the worm is certainly a very healthy employment; and, with no more care than is necessary for the health of the worm, the duties of the cocoonery may be made equally so. The French and Italian Culturists ridicule such an attempt to alarm them with fears on this subject; and Mr de Turk, speaking with respect to the culture of silk,

have been engaged in it have reached the age to which man ever attains. The same is true of the silk culturists in Bavaria. Unwilling, therefore, as we should be, to be instrumental in introducing a business which would require a commutation of health for wealth, we can without any misgivings, say, no person need be deterred from engaging in the culture of silk on account of the influence upon health.—*Silk Culturist.*

NATIVE SILK WORM.

If the statements contained in a work published in London in 1655, by John Streeter, entitled "The Reformed Virginia Silk Worm," &c., are entitled to credit, it would seem the forests of Virginia in the days of its infancy, were inhabited by a species or variety of the silk worm, of a very extraordinary character and habit. The book purports to contain the discovery, by a young English lady, in 1652, of a method of feeding silk worms, in the woods, on the mulberry trees, in Virginia, without shelter from the weather, or much assistance, protection or attention from the planters. From the description which the writer gives of the cocoon, and the various trees and shrubs on which the worm fed and made silk, we should think the account needed confirmation were it not known that the climate of Virginia is remarkably adapted to the constitution of the silk worm. That the worm in some parts of Virginia, as well as in China, will live in the open air, and make its cocoon upon the tree, we have no doubt; but we confess ourselves rather skeptical as to the size of the cocoons of which the writer speaks. If, however, there ever were silk worms of this character in the forests of Virginia, it is to be hoped that the race has not become extinct; and it is certainly worthy the attention of naturalists in that region to ascertain the fact. We give the writers description of the cocoon and habit of the worm in his own language and orthography, promising the remark that "silk bottome" is synonymous with cocoon.

"The Silk Bottome of the naturall Worme in Virginia, found there in the woods, is ten Inches about, and six Inches in length to admiration; and whereas ours in Europe have their Sleeve and Loose Silke on the outside; and then in a more closer covering they intombe themselves. These rare Worms, before they inclose themselves up, fill with Silke, the great emptinesse, and afterwards inclose themselves in the middle of it, so they have a double Bottom. The loose Sleeve Silke is all on the outside of this compass, for if that were reckoned in, the compass of the Bottom would far exceed this proportion; But this is sufficient to be the wonder of the whole World! to the glory of the Creator."

(From the Baltimore Farmer.)

MIXED CULTIVATION OF POTATOES.

We are indebted to a subscriber in Washington county, Va. for the subjoined communication, detailing a series of experiments in the raising of potatoes and corn as a crop in common. We thank him for his favor; it is just such an essay as is most valuable to agriculturists generally. Practical results are always preferable to speculation and theory, because nothing being left to uncertainty, the husbandman is encouraged to go on and follow the example of his successful neighbor. We could wish that others would tread in the footsteps of our Washington correspondent, and give us statements of their experiments; the interests of the cultivators of the soil would be thereby greatly promoted.

To the Editor of the Farmer and Gardener:—

Sir—I have noticed in the Farmer and Gardener of the 17th inst. a description of a sample of some fine potatoes presented to you, and also quotations of other samples for inspection, the weight of the heaviest of which is five lbs. I would state for the information of farmers, that I have been a potato raiser for many years; and, perhaps, it may be beneficial to others engaged in their culture to understand my method of raising as also the quantity I have raised for several years. In 1830, I made an experiment on a new plan in planting a part of my crop: planting *corn* and *potatoes* on the same land. I planted my corn six feet east and west, and a row of potatoes between each alternate row, and when I gathered my crop, I was so well pleased with the plan, that I have planted in the same mode ever since, and have succeeded in always producing good crops, except one year, which was a failure from a severe drought. In 1831, I had sixteen acres in corn at nine feet distance, and potatoes in the centre of the corn rows, my crop was fine: on the sixteen acres the product of potatoes was 2500 bushels, corn 25 1-2 bushels to the acre; the potatoes, taken altogether, the largest I have ever raised: one weighed 5 pounds, 9 ounces, a number of other, 4 pounds and upwards; and I have no doubt but there could have been from 80 to 100 bushels taken from my crop that year, that would have averaged 3 pounds. I have come to the conclusion, that one fourth, if not more, can be raised from the same quantity of seed; they grow much better than in a patch of entire potatoes. The potato is a vegetable that grows best in a cool, moist climate, and I am of opinion the corn crop is but very little diminished in the yield, while the potato crop is much promoted in the product in planting the two crops on the same land. I believe it a great advantage, as in cultivation, the crops thus but little time is lost. I

plan of planting corn, and cover them with the plough, at the time the corn should be ploughed the first time. The most labor in raising the potato in this way, is in taking them up in the fall and putting them in the cellar. In 1832 my crop was valuable, it yielded 2400 bushels raised the same way. In 1833 I had but a light crop, as before stated, owing to a severe drought; in 1834, my crop was 2900 bushels, the present crop was 2000. The potato is a profitable crop.—I find them, from experience in feeding, good food for horses, cattle, hogs, and sheep. The hog is most benefited to have them cooked and mashed, and meal mixed among them. It is an easy matter, and but little expense, to have a *steam* establishment to cook from 1 to 20 bushels at the same time. I have one that 8 bushels can be cooked in, in two hours. The plan is simple and cheap. Any tolerable handy farmer can fix one with a trifling expense. Corn in the ears, or shelled, cut straw, or any kind of food that it may be necessary to have cooked, can be prepared in the same establishment without any alterations being necessary in the machine. It may not be uninteresting to state a few circumstances as to the particulars of a part of my crop. In 1834, from 8 acres which I had in corn and potatoes, (it being a part of the land I had in the mixed crop, I realized an average of the two crops, corn and potatoes, rating the latter at 20 cents per bushel and the corn at 40 cents, of \$52 per acre, besides pumpkins and beans: of pumpkins, I gathered 6 waggon loads.

I noticed the description of a large radish in the essay on vegetables. A radish which grew in my garden this season, weighed 12 pounds with the tops and the small roots trimmed off.

Washington County, Va.

W. B.

FEEDING LIVE STOCK IN WINTER.—There is, perhaps, nothing relating to rural economy, in which the farmers differ more, both in theory and practice, than in feeding their cattle in the winter season. We speak not now of the different kinds of fodder, or of their comparative value in the feeding of stock, but merely of the manner and frequency with which the cattle are fed.

Many farmers believe it indispensable, both as to the good condition of their stock and the greatest economy of fodder, to feed them five times, at least, each day, during the winter; while others practice feeding but three or four times in a day; and again, others but twice.

Experiment alone can prove which of these modes of feeding will carry stock through the winter in the highest order, and with the least expense of fodder. Our own experience on the subject is decidedly in favor of feeding but twice a day. More than twenty years' observation

and experience in the keeping of stock, in a climate, where, on an average, dry fodder is required to be given more than seven months in the year, has given us an opportunity to test the value of the several modes of feeding above mentioned. We were first induced to try the experiment of feeding twice in a day only, from information communicated to us by a very intelligent and successful farmer, in a neighboring town. He said he had a few years before occasion to call on a farmer's widow to aid in the appraisal of several cows, and found them near the end of the winter in such high order as to draw his particular attention.

He inquired of the widow, particularly, the manner in which they had been kept, and found she had given them nothing but hay through the winter; and that in consequence of having no man or boy to tend her stock, she had been obliged to do it herself; and being in rather feeble health, she had never fed them but twice in a day. This led him to examine, particularly, as to the kind and quality of the hay with which the cows had been fed. He found the hay not so good as his own, while the cows were in much higher order than his, though they had been fed five times a day through the winter.

From a knowledge of these facts, he afterwards adopted the same mode of feeding, giving his cattle just so much, twice a day, as they would eat up perfectly clean, and no more; and has since found it, by experience, both a saving of fodder and a benefit to his stock. From this information we adopted the practice of feeding but twice in a day, something more than ten years ago, and have found the same favorable results.—*Northern Farmer*.

ON THE FEEDING AND MANAGEMENT OF MILCH Cows.—It is of great consequence in the management of a dairy that the cows should be treated with gentleness, so that they may not be afraid of being milked, or dislike the milker. A cow will not yield her milk willingly to a person she fears, hates, or apprehends ill treatment from. Young cows, in particular, may have their characters for gentleness and good milkers formed by the manner in which they are treated. This truth, of much importance to all concerned in a dairy or its products, is well established and illustrated by a communication from Mr Russel Woodward, published in *Memoirs of the New York Board of Agriculture*, in substance as follows:—

Having formerly kept a large number of cows, I observed many amongst them dried up their milk so early in the fall, that they were not profitable, while others with the same keeping, gave milk in plenty until late in the season. I likewise have often heard my neighbors observe, that some

of their cows, though very good in the forepart of the season, dried up their milk so early that they were unprofitable, and they would have to put them off; I accordingly found it expedient to find out the cause, if possible: and when I brought to mind the ways that some of my young cows had been kept and milked, I attributed the cause to the milking of them the first season they gave milk; and by many experiments since, I have found that young cows, the first year they gave milk may be made, with careful milking and good keeping, to give milk almost any length of time required, say from the first of May to the first of February following, and will give milk late always after, with careful milking. But if they are left to dry up their milk early in the fall, they will be sure to dry up their milk each succeeding year, if they have a calf near the same season of the year; and nothing but extraordinary keeping will prevent it, and that but a short time. I have had them dry up their milk in August, and could not by any means make them give milk much past that time in any succeeding year. I had two heifers, which had calves in April, and after getting them gentle, I set a boy to milk them for the season, (which is often done the first season on account of their having small teats:) he was careless, and dried them both up in August. Although I was satisfied I should lose the greater part of the profit of them afterwards, yet I took it upon me the following year to milk them myself and give them good feed, but to no purpose. I could not make them give milk much past the time they dried the year before. I have two cows now that were milked the first year they had calves, until near the time of their calving again, and have continued to give milk as late ever since, if we will milk them.—*Gen. Far.*

(From the *New York Farmer and Gardener*.)

SAXONY SHEEP.

MR EDITOR—Having heard much of the celebrated flock of Saxony sheep, of the pure *Electoral breed*, kept by Mr Henry D. Grove, of Hoo-sack, Rensselaer county, and wishing to improve my present stock of sheep, I resolved to pay that gentleman a visit. I accordingly availed myself of a leisure time, and set out with a determination to purchase a few, and gather information from his experience. Accordingly, after a speedy passage of two and a half days, I found myself, an entire stranger, at the house of Mr Grove. I was, however, received with the kindness and welcome I might have expected from an old acquaintance; after an hour or more of chat, we took a ramble over his farm, which I found in excellent order, although upon which perhaps considerable improvements might be made, as he informed me

there had already been made, and were still making. He showed me his small stock of excellent short horn cattle, all in high condition, and with which I was well pleased. We next proceeded to a field where were his buck lambs, about 30 in number; we yarded and examined these thoroughly, as we did also his ewe lambs in an adjoining field; we next yarded his older bucks, and took a searching look at them. His whole flock of about 150 ewes were yarded, and I had an excellent opportunity of examining them singly, and found them to be much superior to what I had anticipated. Having taken plenty of time, and exercised my utmost carefulness and attention in the examination of Mr Grove's flock, I think I can say, and that too without arrogance or duplicity, it is decidedly the best flock within the circle of my acquaintance, especially his ewes, his buck lambs, and reserve service bucks. And, further, I would most candidly recommend to those wishing to improve their flocks, to visit Mr Grove, and examine his flock for themselves; I feel fully assured none such would return to their homes without at least one of his full blood Electoral Saxons. I left home, not expecting to purchase more than two or three, but finding them so excellent, could not leave without taking eleven, 4 grown bucks, 3 buck lambs, and 4 ewes, which cost from \$15 to \$20 per head at Mr Grove's; cost to transport by waggon to West Troy, \$3 50, from thence to Manlius, on boat, \$5 50, toll 78 cents; cost of keeping up, \$3 50.

Since my arrival at home, I have been persuaded, by some particular friends to let them have one a piece, three of them, two grown bucks and one buck lamb, at \$25 per head, and so well are my neighbors generally pleased with these sheep, that I presume I could sell the remaining ones at a much higher rate. I very much approve of Mr Grove's winter management of sheep, which it may not be amiss to notice in this place. He has a large barn built on a side hill descending to the east; the upper part of the building is for keeping the hay, and the basement serves as a shed, or stable, for it may be closed by doors, or they may remain open, at pleasure. At one end is a large, warm, and commodious cellar, where potatoes, turnips, &c. are kept for winter feeding; these are cut in a trough containing 3 or 4 bushels, with an instrument not unlike two spades, the edges crossing each other at right angles, and fitted to a handle about 4 feet long, with which a man will cut 2 or 3 bushels per minute. His racks are light, convenient, and simple, consisting of three small poles, the one at bottom receiving the rounds of each side and one pole on each side at top, the rounds two feet long and three fourths of an inch in diameter, and the top poles separate about two feet, then a light manger about two feet wide and

one foot from the ground, the rack is set firm lengthwise in the centre of the manger, which catches all that falls from either side of the rack, and is an excellent plan to feed grain, potatoes, &c. It is the opinion of Mr Grove, (and I count him good authority,) that potatoes are preferable to turnips for sheep, because they are a much more substantial food, and will never cause sheep to scour, if they are regularly salted, and otherwise properly fed. He also considers it highly necessary that sheep should be regularly bedded with straw; his racks and manger, where his sheep are fed, are kept constantly under cover. Mr Grove keeps a regular record of birth, deaths, sales, and every circumstance relative to his flock is there exactly recorded, every sheep is numbered by marking the ear, and the number is strictly recorded, and many peculiarities highly interesting I might state; but I will conclude by advising my brother farmers to go and see Mr Grove, and hear from his lips, and learn by his experience, many things for their welfare.

Manlius, Oct. 27, 1835.

FARMER C—.

CINCINNATI PORK MARKET.—A correspondent of the Baltimore Patriot, writing from Cincinnati, says:—

“Last year, in this city alone, 152,000 hogs were slaughtered and packed, and largely increased quantities at Hamilton, Rossville, Franklin, Middleton, Dayton, Lawrenceburgh, Madison, &c. This year, I am informed, that 60 or 70,000 will be the extent that will be packed in the city, and but very few will be packed at any of the above-named towns. In Illinois, some few more will be packed this winter than last. But throughout the whole Western country, it is said, that the amount of Pork packed will not exceed one half of the exportations of last year. If this should be the case, (and I have no doubt of the fact) there will, the coming season, be a scarcity throughout the whole country; and prices, consequently, must be high. I am informed by our Pork merchants, that they have advices from New Orleans, Mobile, and many of the Western markets, that the stock of Pork, Bacon and Lard on hand is limited, and commanding good prices.”

WESTERN RAIL ROAD.—We understand that 13 miles of the branch of this rail road from Hudson to the line of this State are already under contract, and that the contractors are now engaged in the execution of the work.

The experiment of planted mulberry trees at Algiers, is about to be commenced on a large scale; the sugar cane is also to be cultivated there.

ADDRESS

Before the Massachusetts Society for Promoting Agriculture.

BY HENRY A. S. DEARBORN.

Gentlemen of the Society and Fellow Citizens:—

The first act of the Almighty, after "the dry land appeared," was the creation of a plant, and sowing its seed, that of savage man, in his progress of civilization; and the earliest achievement in the industrious arts was the construction of a plough. Whether we refer to the mythology of antiquity, or the authentic records of historians, agriculture has been the harbinger of the highest state of moral and intellectual improvement, which has ever been reached in any age or climate. Those pursuits which were commenced merely for the purpose of furnishing the necessaries of life, and were long held in degraded estimation, have ultimately claimed an elevated rank among all nations, at the most glorious period of their existence. No matter how various may have been the character of once barbarous tribes, or how dissimilar their countries, habits and customs, still they have all followed the same route, in the career of refinement; and those which have become most celebrated for exalted attainments in literature, science and the arts, have also been equally distinguished for their superior skill in the cultivation of the earth. Not only the rich valleys and plains were converted into luxuriant fields and splendid gardens, but the rugged mountain, arid desert and stagnant morass successively yielded to the labors of tillage, and magnificently harmonized with the developements of mind, the sumptuousness of wealth, and the embellishments of taste.

The vicissitudes to which nations have been subjected, form memorable eras in the history of agriculture. In the primitive ages, it was limited in the objects embraced within its attention, and confined to the simplest operations of the husbandman. At times it has nearly ceased to exist throughout the globe; and even when carried to the highest practical point of perfection in one region, it has been unknown elsewhere, while it has again fallen into desuetude, after having been for centuries the general occupation of the people, the greatest source of private affluence, and the chief cause of national prosperity. As a science and an art, it has not only been intimately connected with the condition of man in all his social relations, but is blended with the wondrous history of his creation, and the revelations of his religion.

After the expulsion, the first wants of the progenitors of the human race were food and clothing and the duty of providing them devolved upon their sons—the one becoming "a keeper

of sheep," and the other "a tiller of the ground." But there was this remarkable limitation in the sentence for disobedience, as to the application of the products of their industry—those of vegetation only being allowed as food: "Thou shalt eat the herb of the field, till thou return unto the ground." This interdiction continued during the antediluvian cycle; but after the flood, all animals were formally delivered over to the surviving patriarch, with this beneficent declaration: "Every moving thing that liveth shall be meat for you. Even as the green herb, have I now given you all things."

Notwithstanding the precedence which the cultivation of the earth necessarily claimed anterior to this momentous epoch, still, for many generations, the descendants of Noah lived a pastoral life, and were nomads in their habits, although on receiving the sceptre of the earth, "he began to be a husbandman," and one of his first acts was "to plant a vineyard."

Advancing from the mountainous regions of Ararat, into the fertile and sunny vales of the Euphrates, the acquisition of large flocks and herds, with wide ranges of pasturage, induced a less laborious mode of subsistence than must have been indispensable under the austere conditions which the primeval inhabitants were permitted to live. These wandering habits were continued throughout Chaldea and Canaan, down to the patriarchal ages of Isaac and Jacob, and still prevail in the East, among the Arab and Tartar shepherds of the present day. Like the offspring of Jabel, they "dwell in tents," and seek, as of old, fountains of water, in the palm groves of the plains, and the refreshing streams of shaded valleys, as temporary places of encampment.

It is a singular fact, that bread is not mentioned as an article of food, until it was offered by Abraham to the angels, who appeared to him as "he sat in the tent door, in the heat of the day"; showing it was the most rare and precious gift which could be presented. So late even as that period, the wealth of individuals consisted chiefly in flocks and herds; and the most affluent had no fixed or permanent residence, but were obliged to roam over the country, as a large extent of territory was required for the maintenance of comparatively a small population, when the cultivation of the soil was so little relied upon for support. Even when Abram and Lot removed to the fertile borders of Palestine, it was found that "the land was not able to bear them, that they might dwell together; for their subsistence was great," as each had vast numbers of "sheep, and oxen, and men servants and maid servants, and camels"; so that these distinguished and long associated friends were obliged to separate from each other. Lot choosing "all the plain of Jordan, that was well

watered, even as the garden of the Lord," while "Abram removed his tent to the plain of Mamre."

Thus, after a lapse of more than a thousand years, the Hebrew race appears to have made but little progress in the arts of civilization, and exhibits only the migratory herdsman, and the incipient efforts of the agriculturist. So precarious even were their means of subsistence, that their most renowned chieftains were compelled "to go down into Egypt and dwell there, because there was a grievous famine in the land."

Egypt! now for the first time mentioned by the sacred historian. What vivid reminiscences does that name call up. Egypt! the birthplace of science, the cradle of the arts, the wonder of antiquity, the paragon of nations. A country and a people which have been subjects of the deepest interest, and the most exciting inquiry, from the time of Joseph to the travels of Herodotus, and from the visit of Diodorus to the learned researches of Champollion. At the talismanic name of Egypt the ponderous gates of all past time are thrown open, and how fresh, clear, and palpable does the whole history of the world unfold before us.— For a long succession of ages, it was the focus of knowledge, and at the same time the centre of that intellectual radiance, which lighted onward the nations of the earth, in their march from barbarism to refinement. There were nurtured the vast tribes of Israel, — there were they trained to fulfil the high destinies which awaited their miraculous Exodus. From thence went forth that wonderful nation, — those chosen people of God, whose present existence, whose language, faith, and identity of character, is a perpetual testimony of the prophets, and of the truth of those revelations, which constitute the religion we profess.

Egypt! who can hear that word without being excited? It seems to embrace the entirety of the past. What throngs of ideas, — what multitudes of events, rush upon the memory, — what mustering conceptions does the aroused imagination embody forth! The gorgeous courts of the Pharaohs, the conquests of Sesostris, the disastrous invasion of Cambyses, the triumphal march of Alexander, the splendid reigns of the Ptolemys, Pompey's tragic death, the victories of Cæsar, the fate of Mark Anthony, the devastations of the Saracens, the Ottoman subjugation, and the battles of Napoleon, all pass in rapid review, like the magic pageantry of an illuminated scene.

It was on the banks of the Nile, that the moral powers of man were first and most successfully developed. There were laid the deep and broad foundations of an empire, which surpassed all others in the extent of its power, in the range of commercial enterprise, in the number and grandeur of its cities, the magnitude and elegance of its palaces and triumphal monuments, — in wealth,

intelligence, and the arts, — in all that reflects glory on a people, and gives eternal lustre to nations. There, too, was established the dominion of Agriculture; there she commenced her reign; and yet how long was that mighty kingdom wrapt in obscurity, until revealed in the ever-interesting and instructive tale of that adventurous shepherd boy, Israel's darling son. Then, indeed, does it burst forth with imposing magnificence, and the holy annals are filled with its importance, and the gigantic influence which it possessed over all the nations of the East. Subsequently we are very exactly instructed, by both Greek and Roman authors, as to its vast agricultural resources; and the accurate delineations on the still existing tombs of the kings, confirm their glowing accounts of the importance in which the cultivation of the earth was held, as well as the perfection to which it had attained, from the well tilled field of the husbandman, to those superb gardens, which embellished the princely establishments in the environs of Thebes, Memphis, and Heliopolis.

By a long matured theory and practical system of culture, every foot of land was reclaimed, from the bordering deserts, which the fertilizing waters of the Nile could be made to irrigate. Thus the luxuriant valley of that majestic river, in the totality of its lengthened course, was covered with the rich and various products of rural industry, and not only furnished the whole subsistence of a numerous native population, but was rendered for centuries the garden and granary of the world.

From Egypt, civilization gradually extended along the shores of the Mediterranean, the Archipelago, and Euxine; and Phœnicia, Judea, Greece, Carthage and Rome, with their numerous colonies, became each distinguished for their progress in intellectual attainments, and whatever tends to give dignity to man, or glory to an empire.— There were cultivated in a pre-eminent manner, the useful and ornamental arts, and none claimed more attention, or were carried to greater perfection, than those connected with the tillage of the earth. In the march of their victorious armies, letters, and their ever constant and inseparable companion, agriculture, were extended over northern Africa, and through Asia Minor, Spain, Gaul, and Germany, to the distant isles of Britain.

In each of those nations, the cultivation of the earth was the most honorable of all pursuits.— The Egyptians were so fully sensible of its importance, that its introduction was ascribed to the God of their idolatry; and the Greeks and Romans dedicated temples, and erected statues to the numerous divinities of their mythology, who presided over its various departments. As early as the time of Homer, Hesiod, and subsequently Xenophon, with many of his eminent countrymen, wrote on rural affairs. The Carthagenians, in the

palmy days of their prosperity and glory, considered the occupation of a husbandman, not less meritorious than the profession of arms, exalted as was the estimation in which that was held, by the warlike countrymen of Hamilcar and Hannibal. They were so much more distinguished than any other contemporaneous nation, in the science and practical operations of tillage, that a voluminous work by Mago, one of their most celebrated generals, was so highly appreciated, by their haughty and implacable enemies, that it was translated, for the benefit of the people, by an express decree of the Roman Senate.

As to the value placed on agriculture by the Romans, we have the fullest evidence. It was encouraged by liberal donations of land, elevated by the sanctions of religion, and rendered not merely a meritorious pursuit, but an object of the first consideration, by the most wealthy and illustrious citizens. In their conquests, if not always more magnanimous than most other nations, they never lost sight of the grand object for which their invasions were projected—the augmentation of the resources, and prospective aggrandizement of the empire. Instead, therefore, of desolating, they endeavored to improve the countries which they subdued, and were solicitous to civilize the inhabitants by the introduction of letters, with the useful and ornamental arts. Cato derived as much honor from his writings on husbandry, as by his eloquence in the Senate house, his victories in the field, or his lofty patriotism at Utica. Cincinnatus was twice called from his plough to the dignified offices of Consul and Dictator. Virgil acquired as much fame for his poems on rural economy, as by his epic on the adventures of the Iliad prince. Pliny, the Linnæus of antiquity, was as ambitious to obtain the honors which were lavishly bestowed on the cultivators of the soil, as the distinction of pro-consul in Spain. Varro, the intimate friend of Cicero, and who had the reputation of being one the greatest philosophers, and the most learned man of Rome, has his name perpetuated by a treatise on rustic affairs, being one only of his five hundred writings which have come down to us. Columella was the agricultural Cyclopediast of the Caudian age, and his great work, in which he treats on all the branches of agriculture and gardening, is still extant.

Simultaneous with the advancement of the arts of civilization in the West, — if not at an earlier period, — there was a like movement in the East, by which they were extended over Palestine, Persia, Media, and the populous valleys of the Indus and Ganges, and probably to the ocean bounds of China; and considerable portions of that immense region had become eminent for improvements in tillage, anterior to the expedition of the Macedonian conqueror.

But all those once powerful kingdoms of antiquity were destined to experience a tremendous reverse of fortune. By slow advances, each had reached the loftiest point of national grandeur, from whence their decadence was rapid and irremediable. Neither wisdom, numbers, wealth, or valor, could arrest their disastrous fate; and they were successively, either subjugated or impoverished by some ambitious chieftain of a rival power, or overwhelmed by those tribes of barbarians, which in all ages have come down, like a furious tempest, from the northern wilds of Asia and Europe, spreading fire, slaughter and devastation in their terrific course. The whole human race was thus thrown back into such a degraded condition, that the moral firmament was obscured like a perpetual night, by the dark and lurid clouds of ignorance, superstition and wretchedness. Entire nations were so thoroughly exterminated, or so blended in the population of their savage conquerors, as to have lost their distinctiveness of character. Egyptians and Carthaginians have disappeared from the earth, leaving no traces of their existence, but in the stupendous ruins of their cities, pyramids, temples, aqueducts and tombs; and even the inscriptions on those of the former are now unintelligible, while not a single book, or page of the language — no, not so much as the alphabet — of the other has survived: so complete has been the work of destruction. Had it not been for the sacred volume of the Jews, and a few of the Greek and Roman authors, which have reached us, the history of the world, from the creation to the revival of letters, would have been as unknown as that of the American continent, before the voyage of Columbus. By his transcendent genius, a way was opened over the ocean to this western hemisphere, and by the aid of those precious repositories of learning, an arch has been thrown across that immense gulf of oblivion, which separated the far distant past from the present.

Amidst the universal gloom, which so long enveloped the earth, a few but widely separated beacon-lights faintly glimmered in the distant horizon. They arose in the midst of the wide extended encampments of the Arab, the Saracen and the Moor, where yet glowed the unextinguished embers of that general conflagration, in which was consumed the accumulated wisdom of thirty centuries. There it was, that the lamps of literature, science and the arts were reilluminated. At Bagdad and Ispahan, Bassora and Cairo, Fez and Cordova, were again reared the temples, and thither thronged the devotees of intellect. It was there the revival of learning commenced and gradually spreading over Southern Europe, the progress was onward, until it reached

“ That bleak coast, which
Hears the German ocean roar,
Whence full-bloom'd, strong,
And yellow hair'd, the blue ey'd Saxon came,

then with him, and freedom, and Christianity, ultimately crossed the broad Atlantic, and in conformity to prophetic annunciation westward still, they keep their glorious course.

During the ages of bloodshed, desolation, anarchy and barbarism, which succeeded the overthrow of the Roman Empire, agriculture was almost wholly abandoned, and pasturage was substituted for tillage. The earliest efforts for its restoration was made by the Moors in Spain, and was there carried to great perfection, during the period of their supremacy in that kingdom. Remains of numerous hydraulic structures, which were erected for the purposes of artificial irrigation, so indispensable in that sultry climate, are to be seen in several parts of the country, which evince the intelligence and enterprise of the Moorish inhabitants. Some of the most learned men of that extraordinary race also wrote able works on husbandry, which are still preserved in the royal libraries of Madrid: but after the impolitic expulsion of that most enlightened and industrious portion of the population, the cultivation of the earth rapidly declined, and has never since regained its former consequence.

The Italian States early adopted the agricultural improvements which had been introduced into Sicily by its Saracenic conquerors. The Normans and Flemings next became conspicuous for their advancement in husbandry; and after the invasion of Great Britain by the ambitious sovereign of the former, numerous emigrants from both of those nations, soon followed, who gave such a powerful impulse to rural industry, that it extended with various success, over the whole island, where it has finally reached a higher state of perfection, in all its applications, than in any other country.

Stimulated by the favorable results, which had been produced in England, most of the continental nations were induced to attempt like ameliorations, in their antiquated and very imperfect modes of cultivation. Scientific experiments and practical illustrations in the renovated art of tillage were made, and beneficial changes gradually effected, so far as the character of the soil, the products best adapted to their various climates, and the peculiar demands of other branches of industry, might dictate or require. This spirit of improvement has continually extended, with varying energy and advantage, but most successfully in portions of France, Holland, Belgium, Germany and the valley of the Po.

Agricultural institutions were very generally established, for the concentration and diffusion of

information in all the departments of rural economy, either by the voluntary association of the affluent, industrious and emulous portions of the community, or in conformity to express laws and royal edicts. In aid of these powerful auxiliaries, botanical and horticultural societies, and experimental farms and gardens were rapidly founded from London to Naples, and from Paris to Moscow.

The proceedings of these numerous treasuries of knowledge, and seminaries of mutual instruction, being published in the form of reports, or periodical journals, whatever useful discovery is made or interesting fact announced in any part of the large region included within the circle of their influence, soon becomes known in all the others. In addition to all these very effective means for the dissemination of intelligence, funds have been provided by the contributions of the members of the several corporations, the generous bequests of individuals, and the munificence of government for the encouragement of tillage by the distribution of rewards and premiums.

From England, our ancestors brought the theory and practice of husbandry, which there prevailed at the period of their adventurous expatriation; but the progress of improvement here, has not kept pace with that of the parent country. Latterly however, honorable and very successful exertions have been made to awaken a more zealous spirit, diffuse greater information and create a better taste in relation to a subject which is of such vital consequence to the United States, where at least eight tenths of the inhabitants are actually engaged in agricultural pursuits, and who, besides supplying the entire alimentary subsistence of the whole population, a large portion of the clothing and other articles of comfort and luxury, furnish more than three quarters of the native products of exportation, amounting to over fifty millions of dollars.

[To be continued.]

SILK FOR DOMESTIC PURPOSES.—In many families, there are individuals who are in feeble health, or who have had the misfortune of a dislocated or broken bone, who suffer more or less in variable weather, and by languor or pains, can anticipate the approaching storm with a degree of accuracy that cannot be mistaken. Physicians inform us, that this sensation is occasioned by the escape of that portion of electricity which is absolutely necessary for the healthy condition of the body — and as silk is a non-conductor of electricity, medical writers recommend its use, in every possible way, as an *over-dress* to cotton or flannel shirts and drawers. In this way it may be made to prevent or alleviate pectoral or consumptive

affections, rheumatism, inflammatory fevers, indirect debility, and that languor so oppressive to persons of feeble health. A coarse quality of silk similar to the pongee silk, so called, will answer very well for such purposes, and being strong and stout, will do good service. Silk of such quality, might be manufactured in the domestic household and the culture of the mulberry and the manufacture of silk, may be attended to in almost any family, without interruption to other occupations, not only as a lucrative business, but also to prevent or alleviate a variety of pains which flesh is heir to. This subject is becoming so important to the community, and can be undertaken with so little expense, that it merits the attention of every family, to begin a nursery of mulberry trees without delay, and the first or second year may commence feeding the worms, and manufacturing silk, even upon our *common reels, wheels and looms*. Because there are large establishments in contemplation and progress, for the manufacture of silk, some have thought these companies would discourage the domestic manufacture, but instead of discouragement, it ought to operate as a stimulus to family culture; because if families do not wish to manufacture their own silk, they can have a ready market for the cocoons. It is expected, and with a good degree of probability, that the time will come, when our families will not only manufacture, but that they will dress themselves with silk of their own make, with as little expense as they now clothe them in wool and flax.—*P. in Northampton Courier.*

THE SILK WORM.

There is neither perplexity nor mystery in the art of rearing and managing this extraordinary insect. We propose to prove this position by an appeal to the most popular treatises extant—relying on those only which are best adapted to the circumstances of our own country. The works which we consider most entitled to faith in the premises, are Kenrick's Guide, of which we have already spoken—and Cobb's Manual, published two years since by order of the Legislature of this Commonwealth.

We learn from these sources, that in six weeks the vegetable substance of the mulberry leaf is converted into silken threads, by the operations of the silkworm. The eggs, whence the maggot proceeds, when first deposited, are of a pale yellow hue, in size smaller than grains of ordinary beach sand. In the course of four days, those which are likely to produce, assume a sort of lilac, or deep slate color—those which exhibit no change of shade, are unproductive, and of no value. Until preparations are made for supporting the worm, the egg should be preserved in a dry cellar, inclosed in a box made tight, sufficiently safe from

the depredations of vermin, and from the moulding effects of moisture.

In the latter part of May, or beginning of June, when the mulberry leaf puts out, the eggs of the silkworm may be subjected to the process of hatching, if the weather be not cold and damp. The papers upon which the eggs have been lodged by the parent moth, may be placed on tables or hurdles in a warm room, having a southern aspect, but not directly exposed to the sun's rays. In a few days, according to the temperature, the eggs will turn somewhat pale; when there should be laid over them sheets of white paper, riddled by means of a knitting needle, and bent up at the edges, that the young brood may not escape. Over these sheets, lay a few twigs of the mulberry, containing the young leaves. Towards these, the insects will be attracted, and will at once commence feeding. Fresh leaves, finely cut up, should now be administered three or four times a day.

On the fourth day, the insects will have passed what is commonly deemed the first stage of their existence—at which time they become torpid, and must be allowed to rest. During this stage, the litter which they occasion, should be twice removed. They remain inactive three or four days, when they awake with an increased appetite; more food, less delicately prepared, must then be supplied, and their litter oftener removed. Another change, or moulting, preceded also by a state of torpitude, occurs on the thirteenth or fourteenth day. Hurdles of coarsely woven twine may be placed above them, overlaid with leaves, to which they will resort, leaving their litter to be easily removed—an operation which should now be daily performed.

Having reached the fourth stage, the worms are commonly of a light flesh color. They now eat ravenously, and consume the fullest grown leaves in large quantities. They require feeding, in this stage, night and day—and their product of silk is increased in proportion to their supply of food, and their ability to devour it. It is important to the health of the worm, that cleanliness, and a pure atmosphere be always maintained, especially in this stage.

When the insects are ready to commence spinning, or forming cocoons, they manifest an apparent restlessness, and frequently are seen wandering over the untasted leaves and reaching upwards. This period ordinarily arrives in about one month after the hatching. The worms are then usually more than three inches long, and nearly transparent. Brush, broom corn, or other convenient means for climbing should be placed for their accommodation. They soon ascend and enter up on their final labor, whereon they employ themselves without cessation for four or five days,

when the cocoon is completed, the laborer remaining within, and changing to the chrysalis state.

A fortnight afterwards, a little light gray moth emerges from the cocoon, and without taking food at all, for the space of thirty or forty hours, proceeds to lay its eggs, three or four hundred in number, arranged circularly, and closely adhering to papers prepared for the purpose. The moth exists but a few hours after having thus made provision for a new generation.

There are numerous details, of course, connected with the treatment of this wonderful and interesting insect, which we have neither time nor space herein to specify. But we have presented a sufficiently general view of the subject, to satisfy the reader that there is but very little intricacy or difficulty in the matter. Those who may determine, practically, to pursue the inquiry, we will engage, shall be furnished with all necessary information at a very trifling expense. Our only design in the present article, being to dispel doubts touching the ease and facility of transforming the mulberry leaf into silk, we have herein abstained from entering into particulars respecting the natural history of the worm, the appearance and preparation of the cocoon, &c. &c. all, or any of which, shall be cheerfully communicated to those who may need them for experimental purposes.—*Nantucket Inquirer*.

[From the Northampton Courier.]

CHINESE MULBERRY.

The following extract is from a practical cultivator of the common white mulberry, and a manufacturer of silk, who is well acquainted with the business. The process by which he has come to the result of his experiments, appears plausible, and deserve high consideration. He must have set his cuttings and roots of the Chinese mulberry very compact, to give such a yield to the acre; probably only about two feet apart. But the nutritious quality of the Chinese leaf over the common white mulberry, may, in some measure, account for the quantity of silk calculated for the acre; as one pound of Chinese leaf is supposed to furnish nearly as much nutriment as two pounds of white mulberry.

Some persons have said that forty pounds of silk may be considered the product of an acre of land; others, that an acre will yield sixty pounds of silk; these different results probably arise from the size or difference of the number of trees on an acre. The accounts given are generally the result of feeding with the white mulberry. But the following extract is the result of feeding *exclusively* on leaves of the Chinese mulberry (*morus multicaulis*). It will be seen that the plants of cuttings set out the last spring, have yielded over half a pound of leaves to each tree, and the plants

set out the last spring, having some roots to start the branches, gave one and a half pounds of leaves to each.

It is calculated by some, that if silk worms are fed on white mulberry leaves, it requires one hundred pounds of leaves to make one pound of silk, but by the following extract, it appears, that from seventy to eighty pounds of Chinese mulberry leaves are *sufficient* to make one pound of silk; a great saving in favor of the Chinese mulberry.

Another fact in favor of feeding worms *exclusively* on the *morus multicaulis* is, that by an experiment recorded in the July number of the Silk Culturist, 500 worms being fed on the white mulberry, and 500 worms fed on the Phillippine mulberry (the *Manilla multicaulis*), and each parcel of worms fed the same length of time, and with the same quantity of leaves each, resulted as follows:—It required 420 cocoons of those fed on the white mulberry, to weigh one pound, but only 334 of those fed on Chinese mulberry. Another fact:—It is said that the fibre of the silk from feeding on the Chinese, is stronger than that fed on the white mulberry, and it is within the knowledge of the writer, that by comparison of each kind in his possession, cocoons fed exclusively on leaves of the Chinese mulberry, have a more brilliant lustre than cocoons fed exclusively on white mulberry leaves. These facts being admitted, there is wanted but one more — to convince the public that the *morus multicaulis* will successfully resist our northern winters. In answer to which, it might be said, “what has been may be again.” Although unfavorable impressions have been rung from Maine to Georgia, yet the opinion of good and competent judges, in the valley of the Connecticut, and elsewhere, who have tested the experiments, whose confidence is not to be paralysed by conjectures or surmises, have the *audacity* to believe that it will succeed; and from the fact, that even the last severe winter proved no more or even so destructive to the Chinese mulberry, as to the white mulberry, of the same age and exposure.

It is the opinion of cultivators of the Chinese mulberry, that even should it be necessary to lay down and cover the plant every winter, or to remove the plants to the cellar, and reset every year, or should they be killed to the root, no essential damage would ensue; it would sprout again with additional number of stalks. Cultivators here think, that should the tree or plant be every year headed down, the amount of foliage would be increased, and worms from the eggs of the mammoth kind, so called (some of which are in town), producing (with the same care and feed) cocoons of nearly double the weight of the common kind, being fed on the *morus multicaulis*, favorable results may be expected, and is there not

Encouragement for Silk Growers?

Extract of a letter to a gentlemen in this town, dated October 16, 1835. "One observation we have made in regard to the product of leaves of the plant (Chinese mulberry), which I think worthy of notice. We set last Spring 1500 cuttings, about 1000 started and grew well, but the dry weather affected them much; the ground on which they stand, is by no means rich—it would not yield 20 bushels to the acre. From 100 of these young plants, which we considered below an average, we gathered 55 pounds of leaves, giving, at the rate they were set, about 8000 to the acre, sufficient to make at least 100 lbs. of silk. From 100 trees (or roots) that were started the year before, we gathered 150 lbs. of leaves, the same number per acre would give us 21,000 lbs. of leaves, or from 275 to 300 pounds of silk.

From the manner we cultivate those trees, we are satisfied, that an acre can easily be made to produce at the same rate. We shall try the experiment next season, with *one acre* of cuttings—*and one acre* of trees (with roots) started the past season."

Northampton, Nov. 1835.

CONCORD SILK COMPANY.

I believe there has been a passing notice in your valuable paper of a company by the above name, but no particulars were given. At the present time, when there is such a general excitement through the United States, and especially in New England, on the subject of silk growing, a brief account of this company may not be uninteresting to your readers, although it is yet in its infancy. The company was formed last June, and incorporated with a capital of \$75,000. A farm was purchased of 250 acres, and cost \$4,000. The officers chosen for the present year, are Albe Cady, *President*; Hamilton Hutchins, *Secretary*; Moses G. Atwood, *Corresponding Secretary*; Garden P. Lyon, *Treasurer*; Isaac Hill, Abner B. Kelly, Stephen Brown, John Whipple, Samuel Evans, and Charles Smart, *Directors*. An agent has been appointed, who resides on the farm and manages it, being under the control of the directors. The location of the farm is quite retired, being about two and a half miles from Concord village, but beautifully situated on the easterly side of Turkey Pond. A two story house and barn in the purchase, have been repaired, and a building of 64 feet by 34, for various purposes, has been added the present season. A building particularly for a cocoonery has not yet been erected, as part of those now occupied will be used for that purpose probably two or three years. The land is good; and all the variety such as wanted for general farming is here

found. It is calculated by those competent to judge, that more than one half of the farm, or 125 acres is well adapted either for the Chinese or Italian mulberry. About 4000 trees have already been planted, and it is intended to add a much greater number next spring. As the land will be cultivated for other purposes, the trees have been set out 15 feet by 6, which gives about 500 to the acre. At this distance they will be permitted to grow about 10 feet high. The land occupied by the trees this year has been planted with potatoes which yielded about 150 bushels to the acre, without any manure, except a small quantity of plaster of Paris. No worms have been kept the past year, as it is not advisable to pick the leaves the first season after transplanting. It is intended to commence next summer, by feeding about 100,000.

The Concord Silk Company have not been led into this enterprise by any high colored statements which may have been made by enthusiasts and those little acquainted with the business; but they have taken for the basis of their calculations the lowest estimates of experienced men; men who had no object to deceive, but rather would be interested in giving correct information. They feel perfectly satisfied that the profits of a mulberry plantation, judiciously managed, will be such as to satisfy those who are at all reasonable in their expectations, and who do not expect to make a fortune by a single effort.

ONE OF THE COMPANY.

Concord, N. H. Dec. 15, 1835.

(From the New England Farmer.)

BROOKS' SILK SPINNING MACHINE.

The late valuable improvements that I have made in many respects on my machine, by which I spin nearly double to each spindle that was spun by the machine stated in the following letter, induce me again to invite those engaged in silk culture to try *Brooks's Patent Silk Spinner*; fully believing it is the best adapted to spinning silk in the best manner, for any use whatever. As a confirmation of its giving satisfaction, I publish the following letter from a citizen of Ohio, who never saw the machine before he purchased one; and had no instruction how to use it, except the printed directions which are furnished with each machine.

Mount Pleasant, Jefferson co., Ohio, }
11th mo., 25th, 1835. }

Respected Friend—Thine of the 14th has just come to hand, and I am sorry to learn that mine of 7th mo. last, never reached thee. After having tried my machine, I wrote immediately, to let thee know that I would give thee thy price for the right of this State. Not being acquainted with

the merits of the machine, I thought best not to purchase the right, until I had tried it; I am well pleased with it, and have been anxious to obtain the right.

I have succeeded well, and my success has encouraged a number of my acquaintances to turn their attention to the business, some of whom I have promised machines to, on the credit of thy having offered me the right of the State, either as thy agent, or under purchase of thee. Having tried the machine, and a'so having ascertained that the demand for it is likely to be greater than I expected last spring, I am willing to give thee — for this State.

With much difficulty I succeeded in getting 150,000 eggs last spring; they hatched and did well with me, and I have about enough prepared for the loom to make one hundred yards, seven eighths wide. I expect to make upwards of three hundred yards out of my crop, and am preparing to go largely into the business next year. Thy machine meets my expectation every way; all the fault I find with it is, I have not spindles enough. I have spun eight ounces per day with the four spindles. I want a machine that I can spin two or three pounds a day with.

I have saved about three millions of eggs for next year; one third of which I expect to feed myself, and all of which I expect will be manufactured in this village at my factory; I am putting them out to be fed in different neighborhoods. We feed principally on the native leaf, which we find to do very well. After I get through with feeding my worms next summer, I expect to visit your State, and shall call to see thee. I have obtained a weaver from London, and we expect to manufacture every thing, from a ribbon to a bolting cloth. Thine, with respect, T. W.

In a previous letter the writer of this requested liberty of me to build a machine on a large scale, to be propelled by steam power. Also my agent at Mansfield, Conn. is building a machine to carry many spindles propelled by water power. I have published the above letter, although the writer did not expect it to appear in print. I have not doubted the propriety of publishing the letter, believing his philanthropy would be well pleased to be useful to the public.

ADAM BROOKS.

(From the Gene-ee Farmer.)

INTRODUCTION OF THE POTATO,

Its Culture, and Advantages of new Seed.

That the potato (*Solanum tuberosum*) is a native of South America, and was first introduced into Europe from that country, by the way of Spain, has been placed beyond a reasonable doubt by the researches of Sir Joseph Banks, and the discove-

ries of late travellers. The first mention made of the root, is found in a scarce volume printed in 1553, where it is called *patas*. The potato was introduced into Ireland by Sir Walter Raleigh in 1586, and soon found its way into England. They were not much known in London until 1650, and at first were cultivated in botanic gardens only. As an article of food the potato was at first lightly esteemed, and the best methods of producing it little understood, as will appear from the following remark in Evelyn's work: "Plant potatoes on your worst ground, take them up in November for winter spending; there will enough remain for stock though ever so exactly gathered." It is curious to observe the opposition which its introduction has in almost every instance at first called forth; but, like most other things which possess intrinsic value, it has gradually worked its way into notice and favor, and is cultivated within the tropics and 64 deg. North, while it seems adapted to most exposures, and every variety of soil. In some parts of Germany the potato did not gain a foothold until 1720; in Switzerland in 1730, and it was not until the extreme scarcities consequent upon the wars of the French Revolution were felt, that the prejudices against the potato could be subdued in France, and its culture successfully attempted. The extensive culture and use of the potato in Europe as an article of food, has unquestionably added millions to its present population, as it has prevented those distressing famines which used so frequently to occur; and the poor of England and Ireland may forgive Sir Walter for the introduction of tobacco into those countries, when they remember that to him they also owe the potato, a root which constitutes their chief support. It appears to be now pretty generally acknowledged, that the maximum of the duration of life in vegetables, as well as animals, is determined by a law of nature, under whatever circumstances the individual may be placed; and Mr Shirreff, in the London Horticultural Transcript, maintains that in England not a healthy plant of any kind of potato that yields balls or seeds, and which was in culture twenty years ago, can now be found; and every agriculturist of experience in this country, which is probably as favorable to the production of the potato as any region of the globe, if they are not prepared to go as far as the English writer, must admit, that the most esteemed varieties of any given time are very apt to degenerate and become worthless in the space of a few years. Nature obviates this natural process of deterioration, by reproducing the individual from the seed; and in England, this plain course of producing new varieties or renewing old ones, has been adopted with great success. There, many persons are employed in raising what are called seeding

potato. This operation is performed as follows: The largest as well as earliest potato balls or berries are gathered when thoroughly ripened, from several of the choicest varieties; these are kept in dry sand until spring, or else when gathered, the seeds are immediately separated from the pulp and dried, and then kept in paper until wanted. As soon as the season will admit, the seed is sown in a light, clean soil, in drills half an inch deep, a foot apart, and in the drills at the distance of six inches. When the plants come up, they are properly thinned, kept clean of weeds, and earthed up as may be necessary, generally not more than twice. When the top turns brown and decays, the tubers or roots are taken up and carefully preserved through the winter from frosts. The tubers will be of various sizes according to circumstances — generally of the size of a walnut, or perhaps larger. These planted in the spring will produce roots of sufficient size to determine the kinds and qualities of the produce, which may be ascertained by cooking in different ways, and thus their relative value for the table, &c. fixed. The third year the tubers will have attained their ordinary full size and excellence, which they will maintain for a number of years, when they again require a renewal. Hitherto there has been no difficulty among us of procuring new varieties from abroad, or renewing our old kinds of the potato; but it might be well for our gardeners, and even our farmers, occasionally to adopt the English mode of preserving this valuable plant in perfection, or even furnishing specimens superior to any now cultivated, since it is well known that the most valuable of our varieties are not like the original stock, but are the results of careful cultivation.

W. G.

(From Goodsell's Genesee Farmer.)

ON THE CULTIVATION OF VINES, (Cucurbitaceae.)

Many people find much difficulty in raising vines, owing to the depredation of the black flea or the striped bug. As soon as vegetation becomes visible, thousands of these insects will gather on the tender plants, and often cut them down as soon as they appear above the surface of the hills.

By following the subsequent rules, you may easily cultivate melons, cucumbers, &c. without much difficulty. Soon after warm weather has commenced, select a rich, warm, dry place in your garden or field; plough or spade it deep, at the same time incorporating the soil with well decayed manure; sheep manure is the best.

Lay out your ground in hills four and a half feet asunder, each way, raising them considerably above the natural surface of the ground, with the hills inclined towards the south. Having prepared your hills you are ready to commence

planting. Distribute no less than ten or fifteen seeds in a hill, covering them one quarter of an inch in depth. As soon as the plants have made their appearance, take of ashes or soot two parts, plaster one part, pulverized charcoal one part, mix these ingredients together, until the mixture is well incorporated. With this composition enter your garden or field in the morning, while the dew is on, and with a quantity in your hand throw it over the plants, dusting them as much as possible, in order to suffocate the insects, taking particular care to dust the under part of the leaves.

By following these directions you will have the pleasure of seeing your plants in a thriving condition, and in a few days entirely out of the way of these troublesome insects.

As soon as the plants begin to interfere with one another, commence thinning them out. Pull out all but two or three in a hill, leaving those that look the most promising. There are many persons, who leave no less than half a dozen in a hill — this is a *mistaken notion*; for I am confident, that could you rest assured that no worms would molest the roots, it would be better to pull all out but one; and I am fully persuaded, too, that you would gather more fruit from the vines where there was but one or two plants in a hill, than you would, were you to leave half a dozen.

Were you to leave too many, the vines will become so thick that when they set for bearing, most of the fruit will decay before it comes to any maturity.

MILES BEACH.

New London, March 20, 1834.

GREAT HEIFER.—Mr Oliver Shaw of Heath, slaughtered a two years old Heifer lately, weighing as follows.

Quarters	589 lbs.
Tallow	52
Hide	75
<hr/>	
Total	716

The Vermont Phœnix tells of a two year old heifer slaughtered in Brattleboro' by Mr Elias W. Fisher, but it comes a good deal behind Mr Shaw's. The quarters of the Brattleboro' heifer weighed 527 lbs. hide 60, tallow 32—total 619.—*Greenfield Mercury.*

RAIL ROADS IN CITIES.—The Philad. U. S. Gazette states that on Thursday evening the Common Council of that city, by a large majority, passed a bill authorizing the construction of a Rail Road down Market street. A Rail Road runs directly through Schenectady, steam and all. A Rail Road also passes through Baltimore. Yet we should not think well of a Rail Road passing so crowded a thoroughfare as Broadway or Chatham street.

BRIGHTON MARKET,—MONDAY, JAN. 11, 1836.

Reported for the Daily Advertiser & Patriot.

At Market 610 Beef Cattle, 720 Sheep, and 140 Swine.

PRICES—*Beef Cattle*—Sales were generally made to correspond with a like quantity last week; more of the best qualities were at market, consequently more brought our highest quotations. We notice a few very fine taken for 36s, and a few at 34s 6d, we quote prime at 31s 6d a 33s; good 28s 6d a 30; small cattle 21s a 25 6d.

Barrelling Cattle.—We notice no lots taken for the express purpose of barrelling.

Sheep.—We notice lots taken at 15s, 18s, 24s, 30s, 33s and 36s.

Swine.—Those at market were taken from the neighboring slaughter yards: few sales only were effected.

SPLENDID FLOWER BULBS FOR WINTER.

WILL FLOOM IN THE HOUSE.

HYACINTHS—

- Boquet Tendre,
- Groot Voorst,
- Parquin,
- Grand Monarche,
- Oron dates,
- Voltaire,
- Temple of Apollo,
- Lord Wellington,
- Madam Zouman,
- Madam Van Murkeys,
- Gloris Florum,
- L'Ami Du Cœur,
- Pyrnides des Roses.
- 200 Assorted Double.
- 200 Assorted Single, &c. &c.

- Amaryllis (*most splendid flower.*)
- Gladiolus Pseitticiana.
- Polygonus Narcissus.
- Crocus.
- Double Jonquills.
- Single do.
- Crown Imperial (*of varieties.*)
- Frituellera.
- Colchicum.
- Cyclamens.
- Tulips, (assorted,) &c. &c.
- Also—A large collection of splendid varieties of FLOWER SEEDS.

These are to be received by the *Vanella*, from Holland, and will be ready for sale as soon as she comes up from Gloucester, where she put in.

It being late in the season, and having a very large collection on hand, the above will be sold unusually low.

GEO. C. BARRETT.

TEAZLE SEED.

Just received 50 lbs. prime Teazle Seed. The importar.ec of this crop merits the attention of agriculturists.
Dec. 16. G. C. BARRETT.

NEW VARIETY OF BARLEY.

For sale a few bushels of superior German Barley, without hulls, weighs 60 lbs. to the bushel, and will be found a great acquisition to the cultivator. Price \$1 per peck.
Jan. 6 G. C. BARRETT.

Subscriptions and payments to the Silk Manual will be received by the following named

AGENTS.

- New York—G. C. THORBURN, 11 John-street.
- Albany—WM. THORBURN, 347 Market-street.
- Philadelphia—D. & C. LANDETH, 85 Chesnut-street.
- Baltimore—Publisher of American Farmer.
- Cincinnati—S. C. PARKBURST, 23 Lower Market-street.
- Flushing, N. Y.—WM. PRINCE & SONS, Prop. Lin. Bot. Gar.
- Middlebury, Vt.—WIGHT CHAPMAN, Merchant.
- West Bradford, Mass.—HALE & Co. Booksellers.
- Taunton, Mass.—SAM'L O. DUNBAR, Bookseller.
- Hartford—GOODWIN & Co. Booksellers.
- Newburyport—FRENZER STEFMAN, Bookseller.
- Portsmouth, N. H.—JOHN W. FOSTER, Bookseller.
- Woodstock, Vt.—J. A. PRATT.
- Bangor, Me.—WM. MANN, Druggist.
- Hali'fax, N. S.—P. J. HOLLAND, Esq. Editor of Recorder.
- St. Louis—GEO. HOLTON

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES, Russetts and Baldwins.	barrel	1 50	2 00
BEANS, white,	bushel	1 50	1 75
BEEF, mess,	barrel	10 50	11 00
Cargo, No. 1.	"	8 50	9 00
prime,	"	7 00	7 25
BEEFWAX, (American)	pound	25	27
BUTTER store, No. 1,	"	17	20
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	46	50
southern, geese,	"	42	45
FLAX, American,	"	9	10
FISH, Cod,	quintal	2 75	2 83
FLOUR, Genesee, cash	barrel	7 62	7 75
Baltimore, Howard street,	"	7 62	7 75
Baltimore, wharf,	"	7 50	7 62
Alexandria,	"	7 52	7 75
GRAIN, Corn, northern yellow	bushel	1 06	1 09
southern flat yellow	"	1 09	1 10
white,	"	91	94
Rye, northern,	"	1 05	1 06
Barley,	"	90	1 00
Oats, nor hern, (prime)	"	61	62
HAY, best English, per ton of 2000 lbs	"	22 00	25 00
eastern screwed,	"	21 00	23 00
hard pressed,	"	21 00	23 00
HONEY,	gallon	13	14
HOPS, 1st quality	pound	10	11
2d quality	"	12	13
LARD, Boston, 1st sort,	"	11	12
southern, 1st sort,	"	19	20
LEATHER, slaughter, sole,	"	12	14
do. upper,	"	19	21
dry hide, sole,	"	18	20
do. upper,	"	27	29
Philadelphia, sole,	"	25	27
Baltimore, sole,	"	1 08	1 12
LIME, best sort,	cask	3 12	3 37
PLASTER PARIS, per ton of 2200 lbs.	"	20 00	21 00
PORK, Mass. inspect. extra clear,	barrel	2 25	2 50
Navy, mess, :	"	75	90
bone, middlings, scarce,	"	10	11
SEEDS, Herd's Grass,	bushel	75	90
Red Top,	"	10	11
Red Clover, northern,	pound	8 50	9 00
SILK COCOONS, (American)	bushel	65	75
TALLOW, tried,	cwt.	55	65
WOOL, prime, or Saxony Fleeces,	pound	55	53
American, full blood, washed,	"	55	50
do. 3-4ths do.	"	40	45
do. 1-2 do.	"	38	40
do. 1-4 and common	"	58	60
Native washed	"	50	53
Northern pulled, { Pulled superfine,	"	40	41
{ 1st Lambs,	"	30	35
{ 2d do.	"	48	50
{ 3d do.	"		
{ 1st Spinning,	"		
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

		RETAIL PRICES.		
HAMS, northern,	pound	12	12	
southern, and western,	"	11	12	
PORK, whole hogs,	"	6	7	
POULTRY,	"	10	14	
BUTTER, (tub)	"	18	20	
lump	"	22	25	
EGGS,	dozen	25	25	
POTATOES,	bushel	30	40	
CIDER,	barrel	1 25	1 75	

F E S S E N D E N ' S
S I L K M A N U A L
 AND
P R A C T I C A L F A R M E R .

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I. BOSTON, FEBRUARY, 1836. NO. 10.

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BOSTON, FEBRUARY, 1836.

FACTS AND OBSERVATIONS RELATIVE TO THE CULTURE OF SILK.

The following was furnished by a friend, acquainted with the Culture of Silk, and gives much valuable information in a concise form.

STAGES IN THE LIFE AND LABORS OF THE SILK WORM.

Sickness begins in eight days after hatching, when the worms will refuse food for three days. They will again feed five days. Sickness will be renewed again for three days, and feeding will continue again five days. The worm undergoes a third sickness for three days, and feeds five days as before, and becomes sick three days for the 4th time. Resumes its feeding for five days and casts its skin for the last time in the caterpillar state. The worm now devours its food voraciously for ten days and commences spinning.

The different periods in the progress of the life and labors of the insect may be expressed in a tabular form as follows :

8 days old,
3 days sick,
5 days feeding,
3 days sick,
5 days feeding,
3 days sick,
10 days feeding.
10 days spinning.

ON THE CULTURE OF MULBERRY TREES, &c.

In England and countries of a similar temperature, seedling mulberries will not attain a greater height than three inches in the first year. In warmer climates their growth is much more rapid; so that in some parts of India large quantities are sown whose crops are mowed down in the ensuing season as food for silk worms. Sprouts again spring forth from the roots the same year, and are used for a second brood. The silk produced from the worms fed on those tender shoots is supposed to be readily distinguishable by its superiority over that produced when the insect is fed on the leaf of the full grown mulberry tree.—*Dr Lardner.*

SUCCESSIVE CROPS OF MULBERRY TREES AND SILK WORMS.

Notwithstanding the possibility, in some climates and countries, to raise two or three crops of mulberry leaves and of silk worms in the same season, we doubt whether such attempts will be attended with beneficial results in any part of New England. Even in warmer climates than ours the best judges prefer single to successive crops in a season. *Dr Lardner* observes as follows :

“Count Dandolo is of opinion that in Italy it is disadvantageous to obtain more than one crop in each season. He affirms that the mulberry tree cannot bear this constant stripping of its leaves without injury. ‘All things considered,’ says he, ‘I am well persuaded that one of our good crops will be equal to any number that may be gathered elsewhere in a year.’ It is observed that the quality of the silk obtained in Italy from their second *racolta* is always inferior to that from the first breed of worms.

“The Persian cultivators are accustomed, from a motive of economy to feed silk worms upon

boughs of the mulberry tree, instead of using the leaf separately, as is practised in all temperate climates. The leaves continuing attached to the branches, remain longer fresh, have a better flavor and are more nutritious, than those separately gathered, and the silk worms fed from the branches with less waste than when the leaves are strewn singly over them.

“In some parts of Italy and France, mulberry leaves are commonly sold by weight, in the market, and those persons who rear silk worms are often wholly dependant on this source for a supply. Judgement and experience are required in the purchaser, to enable him to make a proper selection of leaves, choosing such as are of a nourishing quality, and rejecting those whose sale would, from their greater weight, be more profitable to the vender. The interests of the two parties are consequently at variance. In other places trees are hired for the season; from four to six francs, according to its size and condition, being paid for the hire of each tree. Under equal circumstances an old mulberry tree always yields better leaves than a young one; and whatever may be the original quality of the tree, as it grows older the leaf will diminish in size, and will so materially improve that at length it will attain to a very excellent quality.”

From the Baltimore Farmer.

In our 35th number we gave an article communicating the fact of the formation of a company in Queen Ann's county, in this state, for the purpose of carrying on the silk culture, and expressing the undissembled pleasure we felt at the information, and it will be seen by the article appended to this, that some patriotic citizens of the adjoining county of *Caroline*, are about to form another company with a similar object in view. To *them* we say, as we said to the public spirited gentlemen of the first named county, may God speed your good work; for *good* must that work be, that sets an example, which, if followed, will add millions to the productions of the state, and increase the means of living to its people, to an amount more than equal to all their wants, necessary or artificial.

Whilst we rejoice in the fulness of our heart at these auspicious beginnings near home, we say to the citizens of every district in the country, where there are genial soils and sun — and where are they not — to emulate the example here set them; they need not fear a glutted market — the

markets of America, England and France, are all open, and offer the richest rewards which the husbandman could desire to urge him forward in this generous enterprise; nor should the *present* demand for raw silk, be taken as any criterion of what it may, by time and circumstances be raised, to. As the means of production and the supply may be augmented, so will the demand be increased. As each year rolls around, new uses will be found for the commodity, until at last, it will be used in a hundred ways not at present thought of. Already have the ever inventive genius of our mechanics substituted it to considerable extent for fur in the fabrication of hats; and as civilization forces its way to the distant west, and as the forests fall beneath the unerring stroke of the axe-man, will the supply of fur become diminished, and the consequent increase of the use of silk in the manufacture of hats be promoted.

What are the facts connected with the history of the growing of cotton in the United States? Who, a quarter of a century ago would have believed that it would have attained one hundredth part of the present amount of product and consumption. The demand has regularly kept pace with the rate of production, and this has been done without any diminution of pound value. Indeed the whole range of incidents involved in the culture of this beautiful and necessary article, are as extraordinary as they are interesting and instructive. And we would here invoke all who may desire to do an especial favor to themselves and to their country, to take counsel by the successful results of the culture of cotton, and enter at once with energy and spirit into that of the more profitable commodity of silk.

CULTURE OF SILK.

Throughout the range of nature there is not perhaps a more wonderful, a more mysterious phenomenon, than that which is presented in the natural history of the silk-worm. That an insect apparently so insignificant in the scale of animal creation — so destitute of every quality calculated to recommend itself to the eye of man — should be the producing cause of immense wealth, not only to individuals, but to the whole nations — is a fact so many centuries old, that it has ceased to be regarded as marvellous. Yet it is marvellous — and the closer we look into the matter, the more astonishing are the results manifested. From the inscrutable toils of this petty mechanic, which seems to exist, and to labor, and to die, for the sole and exclusive benefit of the human race, are furnished the most splendid habiliments which bedeck royalty and nobility — the most useful and durable fabrics worn by the great mass of civilized society. An imperfect idea of the annual worth of these labors may be gathered from the

consideration that in our own republic alone, the consumption of silk goods—the product of foreign worms—amounts yearly to *hundreds of millions of dollars*.

The time will come, unquestionably, when this fact, now so notorious, will seem more like fable—and when too, taking into view our undoubted resources and facilities, it will be placed among the severest reflections upon the character of the age. Ignorance of the subject must then constitute the only plea of those who would palliate the negligence hitherto prevailing. Or, if that excuse avail not, it must be said that a strange apathy—an unaccountable indifference—perhaps an unpardonable disregard of one of the highest and most important of our interests, has pressed upon the subject like an incubus, and prevented or prostrated every effort to arouse popular attention. Eager, and wide awake, as we proverbially are, in all matters involving prospects of profit, it must be confessed that in relation to the details connected with the growth and manufacture of this precious material, we have heretofore been—not ‘slow and sure’—nor even ‘slow and easy’—but culpably tardy.

According to an authentic estimate of the value of silk goods imported into the United States, the average sum of one dollar for every individual population, is annually paid for articles which we ourselves are capable of drawing from the very earth—thus sending twelve millions of capital unnecessarily out of the country, to reward the industry and enrich the skill of other lands. The ingenious caterpillar to whom we are rendering this extravagant tribute, and the plant which constitutes its food, may be reared and made to thrive in our own territory and upon spots otherwise useless, and even comparatively barren—in every respect as advantageously as in the most favored climate of the old world.

Perhaps from the absence of practical information, touching the minutiae of this business—the common and erroneous impression that in the culture of the tree, and in the management of the insect, as well as in the manufacture of the filament, there is much troublesome intricacy—the latter notion a natural consequence of the former want of knowledge—these together have constituted probably the most formidable obstacles to the establishment and progress of this great branch of national industry. Involuntary ignorance may be pardoned but a wilful determination to remain so in relation to a matter of such acknowledged importance—when every temptation to inquiry is presented and when that investigation requires so slight an effort—amounts, in our view, to absolute wickedness. The smallest possible measure of faith, exercised on this subject to a very limited extent, will lead to the development of facts and

to the discovery of results satisfactory to every candid mind, and truly astonishing to all who shall thoroughly pursue this inquiry.—*Nantucket Inq.*

PRICE OF MAKING COCOONS.—In most of our estimates of the profit of a mulberry plantation, we have put down the labor of making silk at three-fourths of its value, and in no instance less than one half. A few days since, a silk grower from Mansfield informed us that he was ready to contract for making cocoons at \$1 a bushel, which is one third of the price they are now selling at the Silk Factory in this city. He remarked that he could furnish the help and make a fair profit at that price. From this statement it will be seen that foliage sufficient to make a bushel of cocoons is worth on the tree \$2,00 and according to the quantity ordinarily consumed in making a bushel, $1\frac{1}{2}$ cents a pound. Taking this as a basis of a calculation, a farmer may readily ascertain the income he may derive from this source without interfering with his other agricultural operations. The sale of mulberry foliage is a very important article of traffic in Europe and Asia, and we have no doubt will soon be in America. Every farmer who sets out mulberry trees will very soon derive a fair profit from them, though he may not be disposed to engage in the culture of silk. We hope no farmer will neglect to provide in this manner, a fund from which both himself and his posterity may draw at pleasure.

SORTING COCOONS.—Before commencing the operation of reeling, the reeler should sort the cocoons and place them in separate parcels, according to their quality. The qualities of cocoons admit of five varieties, and are known by the names of double cocoons—the *chiques* or skins—the *fine*—the *demi-fine*, and the *satin cocoons*. The double cocoons are those in which two or three worms have worked and enclosed themselves. They are larger than the single ones. The *chiques* or skin cocoons are softer and resist much less to pressure—the *fine cocoons* are those of which the surface presents a very fine and very close grain—the *demi-fine* are of a more loose and larger grain—the *satin cocoons* are those of a still inferior quality. Though cocoons are not ordinarily so particularly sorted; yet when it is intended to reel silk of an extra nice fibre, it is desirable they should be.

Before reeling they should also be cleaned from the floss and loose threads with which they are enveloped. This is done by having them picked off by children.

In picking or flossing cocoons, care should be taken that all the floss be preserved, as it may be appropriated to many valuable purposes. Boiled in soap and water, and afterwards carded with

common cotton cards, and spun on a common spinning wheel, it makes a good material for stockings, gloves, &c.

NEW WORK ON SILK.—The Editor of this paper has prepared a *Practical Treatise* on the CULTURE OF SILK adapted to the soil and climate of the United States. The work is illustrated by engravings, and contains over 100 pages. Price 50 cents.

SILK CULTURE IN NEW JERSEY.—A number of gentlemen of Warren county, New Jersey, have given notice of their intention to apply to the Legislature of that state, for a charter of a Company, with a capital of \$300,000, for the purpose of raising the mulberry and manufacturing silk, in that county. This is a very encouraging beginning and as the soil of New Jersey is peculiarly favorable for the growth of the tree and rearing of the worm there is little doubt of their being followed by other gentlemen equally spirited.

ATLANTIC SILK COMPANY.—A number of the citizens of Nantucket have recently associated for the purpose of engaging in the manufacture of silk, with ulterior reference to the production of the raw material. They have assumed the name of the "Atlantic Silk Company," and propose investing a capital of not exceeding \$40,000. From an article on the subject in the *Inquirer*, it is manifest they have taken hold of the business with an energy and zeal which will ensure success. They have purchased a site for a factory, and are about erecting a building 60 by 30 feet. They have also contracted for an engine, machinery, &c., and expect to turn out in the course of the ensuing year upwards of three hundred yards of rich heavy fabrics per week.

BEAVER SILK COMPANY.—The silk business is "going ahead" in Pennsylvania. A company has lately been formed in Philadelphia by the name of "The Beaver Silk Culture and Manufacturing Company."—The capital stock of the Company is 50,000, and a tract of land near Beaver Falls in Western Pennsylvania, has been purchased for their operations. Samuel C. Atkinson, Esq., editor of the *Saturday Evening Post*, has been elected President of the Company.—*Silk Culturist*.

THE MANUFACTURE OF SILK.—We have heretofore had occasion to speak of the success with which the power loom had been applied by Mr. Gay to the weaving of Silk. But the only experiments which had then been made, had been made upon an old and very awkwardly constructed cotton loom. Within the last three weeks, one of the new looms, with improvements by Mr. Gay, adapted to the manufacture of silk has been put in operation upon a piece of fine white Pongee Handkerchiefs, three quarters wide. This loom

been entertained in relation to the practicability of weaving silk in this manner. We have several times made the observation by marking the piece with a pencil, and the loom has woven an *inch and a half* of this fabric in *one minute*. Others have at different times witnessed the operation of the loom and their observation of the result has been precisely the same. The speed is regulated at *one hundred and forty* strokes of the lathe per minute, and the fabric which it turns off is in no manner inferior to the imported article.

The girl who attends it is an experienced cotton weaver and one of the smartest in the country. She affirms that she can without difficulty tend four of them, and turn off *one hundred* yards of goods per day. What will Louis Phillipe say to that?—*Providence Journal*.

NATIVE SILK.

A specimen of sewing silk was shown to us a few days since by a gentleman of this town, which was produced on the farm of Mr. Adams, of Walpole, Cheshire county, and manufactured by Mrs. Adams. It was reeled from the cocoons on a common hand reel and spun on a common spinning wheel. Mrs. A. was aided in the process by no other knowledge than that which she had acquired from reading. For smoothness, evenness of texture and strength, it is not surpassed by any which we have ever examined. We have a sample of the silk in our possession, which we shall be glad to exhibit to any one who may have the curiosity to inspect it.

We are further informed, that the trees from which the worms are fed, are but four years from the seed.—*N. H. Argus*.

Have you made up your mind with regard to entering into the mulberry culture? If you have not, let no consideration deter you from it longer than the coming spring. A few dollars laid out in white mulberry seed, and morus multicaulis cuttings, if these should be judiciously cultivated would lay the foundation of future independence. We wish the farmer in moderate circumstances to bear in mind that a *single acre* in mulberries will clothe and educate his children; that five will enable him to live sumptuously, and lay by enough in ten years to leave his family independent.—*Farmer and Gardener*.

From the *Silk Culturist*.

HEDGES.

We commend the following letter to the attention of cultivators of the Mulberry. The method of cultivating in hedges, we think the best that has been attempted, and have little doubt of ultimately being universally adopted. The method

berry is cultivated in this manner in the form of fence and field hedges. On the borders of fields hedges may be set out for the double purpose of fence and foliage, and the interior of fields is often covered with hedges, at suitable distances from each other to admit the passage of a hand cart or one horse waggon, for the purpose of gathering the foliage and transporting it to the cocoonery. The method of propagation is much the same in both cases, and is done either by transplanting the plants from the nursery, or sowing the seed where it is intended to make a hedge.

To make a hedge by transplanting from the nursery, take plants one or two years old and set them at the distance of eighteen inches apart, or, if it be intended to make a thick set hedge, at the distance of one foot. Cut off the tops at four or six inches from the ground, leaving two buds opposite each other, and removing the rest. This causes the stock to have two vigorous branches the first year. The next spring, cut one of these two branches on the same side, at twelve inches from the ground, in such manner that each plant may have a long and a short one, but horizontally on the same side also one after another, all the branches, and fasten them with cords or withes, so that they may form a line parallel with the earth, and leave the entire branches untouched. At the commencement of the third year, the plants will have branches to form a hedge.

The height, form, &c. of a hedge may be regulated, according to the taste or convenience of the cultivator, by cutting off the branches, when covered with leaves, and feeding the silk worm. Some cultivators are permitting standard trees to grow up out of their hedges at the distance of ten or twelve feet from each other. This is doubtless an improvement, as by cutting away the hedge, an orchard of standard trees would be left, should it ever be found desirable so to do. Rails might also be inserted into the standards, and a good fence easily made. To make a hedge from the seed it is only necessary to sow the seed and then treat the plants in the same manner as if transplanted from the nursery.

With regard to the inquiry of Mr Paige respecting engaging the services of some person of experience in managing the silk worm, we can only say that we have numerous applications of the same kind, which as yet we are unable to supply. But we will here take occasion to say to all such persons, male or female, who may not be otherwise engaged, that by making the fact known to us, we can refer them to gentlemen, who would gladly avail themselves of their services the coming silk season, at wages with which they would be satisfied.

ALBANY, Jan. 4th, 1836.

F. G. Comstock, Esq.,

SIR:—I have for the last four summers engaged in the culture of the mulberry. My object originally was, solely for the purpose of hedging; and I shall continue it, but if eventually my hedges can be turned to account, by the aid of the silk worm, I shall not hesitate in making them contribute to that object. I have already more than a mile in hedge, and about two acres in nursery; and seedlings of last season, sufficient to add at least another acre to my nursery. In hedge and nursery, of two, three, and four years old, I have about 45,000. If I could procure a female of sufficient experience to take charge of the silk worms, I think I would make the experiment next summer, I think my trees would furnish food for 60 or 70 thousand worms, perhaps more. There is no one in this part of the country who has any practical knowledge of the management of the worm.

May I be permitted to ask, if you can refer me to any one, whom I could probably employ for that purpose.

Respectfully, Your
Obedient Serv't.

JNO. KEYES PAIGE.

EFFECT OF BONE MANURE ON CORN.

To the Editor of the Farmer's Register:—

Brookfield, Henrico, Nov. 6, 1835.

In a number of the last volume of your Register, a correspondent describes an experiment made by the application of bones as a manure for corn, the result of which, as reported, seemed to prove that corn derived very little benefit from their application. From long experience in the use of bones as a manure, and a knowledge of their highly fertilizing properties, I was induced to make a similar experiment on a small scale. During the last winter, I got the negroes on the plantation, for a small premium, to collect at their own convenience, a quantity of bones from around the neighborhood, and during wet or stormy weather, had them broke in a wooden trough with pestles shod with iron, into as small pieces as my time would permit, a small proportion of them being reduced to a powder. At the time of planting the corn, I selected four rows, forming an intermediate space between ground well manured from the winter farm pen, and ground not manured. On these selected rows, I applied the bones thus pounded, depositing a small quantity of the bones previous to planting the corn in each hill, afterwards dropping the corn, and covering the whole with the hoe, not deeper than any other part of the crop. At a very early stage of the growth of the corn, it exhibited a superiority over that growing on either side, and maintained that appearance

throughout the whole of the season, the difference being discernible at a distance. There were two stalks cultivated in the hill, at five and a half by three feet, the greater proportion of the stalks producing two good ears. Throughout the whole of the season it maintained a vigorous and rapid growth, and when the corn on both sides of these rows exhibited evident symptoms of having suffered injury from a short drought, the corn on these rows was apparently uninjured. In cutting and clearing off the corn, preparatory to seeding wheat, much of the general crop was very imperfectly matured, while the corn raised on the bone manure presented a much smaller proportion of imperfect ears. Circumstances prevented me, as I had intended, from ascertaining the exact difference of produce — but gentlemen who were competent judges, estimated that the produce from these four rows would exceed the produce from an equal number of hills from the farm pen manured land, by at least one third, and more than double that of the land which had received no manure. From the result of this experiment, I am satisfied that bones are a valuable manure for corn, if applied even in very small quantities. — The expense of them would be small, and they are much easier pounded, when performed as above stated, than gypsum, and the expense of collecting and hauling is very trifling. On every farm there are a greater or less quantity of bones scattered about, and in the vicinity of every village or city, they are deposited in large quantities, presenting anything but an agreeable or pleasing appearance, reminding the passenger at every step that he is, as it were, in the midst of a charnel house. How much better would it certainly be that the tiller of the soil should enjoy the full benefit of their enriching qualities, and that these animal remains which now present nothing but a loathsome spectacle, should be employed to beautify and fertilize the soil which once afforded them subsistence, and instead of presenting an eye-sore to their late masters, be to them a source of profit?

I regret that circumstances so occurred as to prevent me from having it in my power to present you with more practical results, than are above stated. As it is, I hope it may induce some one of your readers to bestow some attention on a means of improving their exhausted farms, within the reach of almost every farmer. I anticipate that the benefit which the wheat crop may receive from the application of the bones, will be as decided as has been that of these four rows of corn.

A. NICOL.

MAMMOTH APPLE TREE.—We are indebted to a highly respectable gentleman of Hardy county, Va. for the following facts relative to a mammoth apple tree, on the farm of Capt. Daniel McNeil, of that county. Our informant says, he took the

dimensions of this mammoth apple tree carefully and accurately, and found it to be 45 feet in height and 55 in breadth; circumference of the trunk 9 feet 4 inches. About seven feet from the root there are eleven branches, the average size of which are 3 feet 10 inches in circumference. But the most remarkable fact about it is, the quantity of fruit it bore the present year: one hundred and eighty bushels of apples were taken from it this fall. Four or five bushels, of such as were bruised and partially and entirely rotten, were left under the tree: and a good deal of its fruit must have been taken away by different persons through the summer and fall; so that the real quantity it bore must have been very near, if not quite two hundred bushels. The apples are very large. It stands near the South Branch, on very rich soil. I have been informed that it did not bear any fruit until after it was twenty years old. It grew spontaneously where it now stands, and, although forty years old, continues to grow.—*Romney Intel.*

SILK IN VIRGINIA.—We have recently received from Virginia, very large additions to our Silk Manual subscription list. One gentleman writes: “The people in this State are wide awake upon this subject; and great progress has already been made in the establishment of plantations of Mulberry Trees, &c.” There is no doubt but that the Silk business will prove eminently successful in that State. We shall be glad to receive communications from that section, detailing its progress and prospects.—*N. E. Farmer.*

GREAT CROP OF RUTA BAGA.—*Mr Holmes:* As it may be useful to report the produce of certain crops occasionally, in order to let people know what we are doing “down East,” I wish to inform you that Mr Joseph Weston, 3d, of Bloomfield, raised during the past season on twentyfour rods of ground, 170 bushels, being if I mistake not, after the rate of *eleven hundred thirtythree and one third bushels* to the acre. What would friend Cobbett say to this, if he were alive now? If he who makes two spires of grass grow where but one grew before, is more of a benefactor to mankind than he who conquers nations — surely he who makes an acre of ground produce at the rate above mentioned, is deserving great commendation for his skill and industry.—*S. in Maine Farmer.*

TO DRIVE BUGS FROM VINES.—The ravages of the yellow striped bugs on cucumbers and melons, may be effectually prevented, by sifting charcoal dust over the plants. If repeated two or three times, the plants will be entirely free from annoyance. There is in charcoal some property so obnoxious to these troublesome insects, that they fly from it the instant it is applied.—*Indiana Aurora.*

ADDRESS

Before the Massachusetts Society for Promoting Agriculture.

BY HENRY A. S. DEARBORN.

(Concluded from our Last.)

There are two chief modes, in which improvements are effected in agriculture: one, the introduction of new or valuable species, or varieties of the vegetable and animal kingdoms, and the other a more perfect theory in the science and a better application of labor to the art in all their diversified compartments. The latter includes the requisite implements, as well as the manner in which every kind of cultivation is to be conducted, and the great object of both is to obtain the largest amount of products, which the earth is capable of being made to yield, by the most approved management, and at the lowest possible expense.

So simple and common are these positions, so self-evident and familiar are they, that it may seem irrelevant as the utterance of truisms to repeat them. They were early proclaimed by Bacon, Tull and Evelyn, and have been emphatically illustrated by Coke, Young, Bakewell and Sinclair — names which will ever be illustrious in the annals of agriculture. Yet how little have they been regarded here, and how few among all those, who have spent their lives in cultivating the earth, can say, that they have attempted the fulfilment of the requisitions implied, although so indispensable to their own advancement. Routine has been more influential than precept, and custom has domineered over truth and reason. We have been quiescent pupils in the observance of what has been, rather than anxious inquirers of what should and can be done. The mind has been slavishly restrained by prejudice, erroneous example, and that dread of change, which has been so universal and so fatal to the improvement, rights, dignity and happiness of man. Something more, then, is required, than a mere knowledge of principles, to insure their salutary influence, and of duty, that it be well performed. There must be independence of thought, and freedom of action, with an energy of disposition which constantly aims at improvement and is never satisfied until it is reached. And where are we to look for the greatest display of these qualifications? where are they most certainly induced? Is it not in those climates which are embraced between the southern and northern extremes of the temperate zones, and in those localities too, where the soil is not naturally the most remarkable for its fertility, or the physical conformation of its area, the most favorable to the efforts of tillage; for there the greatest intelligence, genius, skill and industry are required to produce the desired effects; and

it is most common, that in countries where these difficulties are to be encountered, the best farmers are to be found, and the most instructive, as well as valuable results are obtained. This arises from the constant demand of expedients, to surmount the numerous obstacles to complete success, which the asperities of the soil, the rigor of the climate, and the labor of fertilization, present; as impediments in this, as in all other pursuits, have a direct tendency to challenge enterprise, and create the means for overcoming them. Activity is thereby given to talents, ingenuity is roused, and that determination of character formed, which neither admits of impossibilities, yields to adverse circumstances, or halts in its course, until the object sought is attained.

But there never has been any thing great achieved where there were not difficulties to be encountered. It is thus that the noblest faculties of the mind have been wrought up to the exercise of their highest powers, and man to the display of his immeasurable resources. Every conception of an important truth is accompanied by the cheering belief of witnessing its verification; and the triumph over obstructions in its development is as exhilarating to the philosopher and artist, as victory to the warrior. It matters not what is the exaggerated magnitude, or apparent insignificance of the inquiry, it cannot be prosecuted with any prospect of success, unless there is an ardent disposition, accompanied by that indomitable spirit of perseverance, which puts at defiance all hazards and all odds. Whether the object of accomplishment or investigation be the construction of a Roman aqueduct or the stringing of a lute, the geology of the globe or the anatomy of a beetle, the discovery of a new world or a new plant, there must be brought into vigorous action the highest powers of intellect and the most zealous determination of purpose. There is nothing valuable to man, or honorable to nations — not an addition has been made to the fund of intelligence — not a step taken in the progress of civilization, which has not been the result of intense thought and infinite research. It is one of the conditions of our existence — the fiat of Omnipotence — that to attain excellence in even the humblest vocation, there must be untiring industry, sanguine hopes, and great labor. What, indeed, were we but for that unquenchable thirst of knowledge which no acquisitions can abate — that restless demand for action, which is but increased by fruition, and that aspiring reach of imagination, which finding no terrestrial bounds, ranges from the farthest constellation in the zodiac to the realms beyond the skies — to an existence as illimitable as eternity, and an elevation transcendent as the archangels. Were we not thus created, and so endowed with an intuitive credence in the immor-

tality of the soul, the human race must have remained in a state of the most abject ignorance and degraded barbarism. It is the inspiration of divinity itself which animates and urges us on, in the interminable career of intellectual attainments and moral grandeur.

What is the biography of those mighty men who have illumined the past and the present, and thrown forward into the obscurity of the future the effulgence of their glory? Is it not the record of genius struggling with misfortune, and battling with prejudice and ignorance, to evolve some momentous fact, establish some fundamental principle in morals, proclaim some invaluable discovery in science, or perfect some brilliant experiment in art? The very temerity of their enterprise, the cold indifference of anticipated patronage, the desponding thralldom of penury, and that unwearied perseverance which knows not despair, are the alternate subjects of our praise and commiseration. Our admiration is constantly excited by that boldness of mind and that fearlessness of heart, which are neither smitten down by the iron mace of arbitrary power, the withering influence of fanatical persecution, or the discouragements of unrequited merit; that, "unaided, unfriended and alone," they rose superior to the storms of fortune, and became the ornaments of their age — the benefactors of mankind. It is from these causes that we honor the names, and dwell with such profound interest upon the characters, of Galileo and Tasso, Hampden and Milton, Watt and Arkwright, Rittenhouse and Fulton.

Let not the hardy sons of New England, then, doubt of success in the application of efficient means to ameliorate the condition of their tillage, either from the rudeness of their climate, or the less favorable character of their soil, compared with the fertile savannahs of the South and the beautiful prairies of the West. They have shown what the Saxon blood can achieve, in the battle field and on the deep, in science and in the arts, in commercial adventure and mechanical skill, and they will not incur the stigma of degeneracy, by failing to rival their own lineage of another hemisphere, in that pursuit where they have attained such marked distinction.

It should be recollected, that it is not the geographical position or sterility of our inheritance, which have thrown us in the rear of other nations; for that vast and favored region which lies under more propitious skies, in the other extremity of the Union, is not in advance of the North.

There are many causes which have retarded agricultural improvements throughout the United States, other than the natural difficulties which are to be encountered. None, however, have operated more unfavorably, than the indifference which has too generally prevailed, in relation to the subject, but more especially among those who,

from their ample means, distinguished attainments, elevation of character, and the time which they might devote to experimental inquiry, could render such essential service, both by their practical operations and the powerful influence of their example. There are, it is true, illustrious exceptions to this lamentable and inexcusable neglect of the noblest pursuit in which man can be engaged, when taken in the widest scope of its intellectual, moral and physical influence.

Strenuous and commendable exertions have been made in many of the States, to induce a better disposition. This society bears upon its roll of members, the names of individuals, whose long and faithful public services cannot be too highly appreciated, whose patriotic ardor has experienced no retiring ebb, and whose munificent contributions, lessons of instruction and practical labors will be enduring monuments of their fame. Other portions of the republic can boast of like benefactors. Still there is much to be done; and if there is an earnest and generous co-operation, much can be accomplished by individual enterprise, numerous and active associations, and governmental encouragement. We have already experienced, in this State, the beneficial consequences of all these influences. It is to be traced in our gardens, orchards and fields — in our flocks and herds, our farm-houses and villages, from the bleak shores of the ocean to the luxuriant banks of the Housatonic.

Within a few years the occupation of a farmer has been elevated in general estimation; a residence in the country has become more desirable among those who have accumulated fortunes in other pursuits, and a taste for useful and ornamental culture evinced, which are full of promise for the future. But to rival other nations, there must be a more thorough change effected in public opinion. Here, unfortunately and inexplicably, the fashion has been in favor of congregating in large towns and cities, as well among such as have been reared or acquired fortunes there, as those who were born and reached affluence in the interior; while in England the reverse has been the universal taste. There the nobleman and commoner, the statesman, orator and poet, the generals of armies and the admirals of fleets, the merchant and manufacturer, and men of fortune and intelligence in every rank and station, consider the country not merely the most desirable, but the only proper residence of a gentleman. It is, in fact, an indispensable prerequisite to the assumption of that character, and obtaining the position in society which it commands, while the towns and cities are deemed but as temporary abodes, or as the places where means may be acquired by such as do not inherit an estate, for indulging, at some future period, in the comforts, honors and luxuries of a country life. It is to

this enlightened sentiment that may be traced all that there is of freedom in that flourishing empire. It was in consequence of this condition of society, that civil liberty was there so early established, and has been so gloriously maintained, while it has either never been enjoyed, or been speedily e-loven down, in all the other portions of the eastern continent. It was the bold and independent land-holders who compelled the tyrant John to sign the great Charter of England; and they have stood ever since, in the midst of the nation, a colossal political Janus — opposing, with stern defiance, the attempted encroachments of the monarch on the one side, and restraining the licentiousness of the stormy multitude on the other — obliging each to respect the Constitution and the laws. The proprietors of the soil have ever prided themselves in participating in the useful avocations, comforts, embellishments and amusements of a country life. There they expend their vast incomes in a manner which gives the greatest encouragement to rural industry. The experiments which they have made in field cultivation, for improving the breeds of domestic animals, extending the bounds of horticulture and ornamental planting — their liberal expenditures in the erection of private and public edifices, in the construction of roads and canals, and their generous endeavors to alleviate the condition, elevate the character, and promote the prosperity and happiness of all classes, in their multifarious vocations, and to advance the public weal, have had a powerful tendency to excite emulation, and give an activity, determination and elevation of character to the entire population, unprecedented in the annals of the world. There we behold the indispensable and useful, studiously combined with the ornamental, from the baronial establishment to the thatched roof cottage. A taste universally prevails for giving either a more magnificent, picturesque, beautiful or neat appearance to every estate, while the necessary and profitable labors receive the most careful consideration and exact attention. The refinements of the arts are blended with all the possible comforts of each habitation, whether it rises in antiquated battlements, from the heights of a princely domain, or is the dearly cherished home of him, who is but the tenant out of a rood of land.

What more interesting inquiry can there be presented to the statesman, than the intimate connexion which exists between the political and agricultural histories of England. Are they not striking illustrations of the reciprocal influence of each, upon the character and condition of the people, in their domestic and national relations. We have only to look into the annals of the past, and examine the present condition of Great Britain, Spain and France, for a full solution of the

problem, how and why it is, that the two latter are so far in the rear of the former, in their institutions of government, and the general aspect of the country.

In Spain, the rich proprietors of the soil were compelled to live at Madrid, from an apprehension of the sovereign, that their residence in the midst of their numerous tenants would be dangerous to his power; and the disastrous consequences have been despotism, an ignorant and impoverished population, and an uncultivated kingdom. In France, especially after the accession of Henry IV. to the throne, if the nobles were not required to abandon their estates to the management of the peasantry, they were induced to concentrate round the court, from the splendor with which it was maintained, the prestiges which deluded the ambitious, the stations which were conferred on many of the most powerful, and the hope of royal favor in all. If the country was not as badly cultivated as that beyond the Pyrenees, the people were nearly as impoverished and degraded in character.

How often, in our day, have we seen those nations convulsed by revolution, when the only measure required for producing a change of government, or of dynasty, was the unfurling a new banner on the Palacio Real, or the Thuilleries. Paris and Madrid, like Rome, when in the plenitude of its glory, have each become the state of their respective kingdoms, insolently unifying the prerogatives of the senate and the forum, and whoever can wield the physical and moral power of either, may dictate law to all the other provinces, as to so many distant colonies.

How different is the situation of Great Britain. The tower may be stormed, the palace of St James razed to the ground, and London controlled by a mob, the myrmidons of a tyrant, the army of an usurper, or the legions of invasion, — still England would no more be conquered, or its government subverted, than by the destruction of Dover castle, or one of her ships of the line. Her mighty power is in the owners and cultivators of the soil scattered broad cast over the whole surface of the island, where every yeoman is a champion of liberty, and every house a fortress. There the whole people must be consulted for change or reformation, and every gallant Briton must be cut down in battle, or subdued by overwhelming numbers, from Cornwall to Caithness, before the government can be abrogated, or the nation yielded up to foreign conquest.

Who will ask the cause of this intense attachment to their homes and firesides, — of this lofty and ardent patriotism, when there is not an acre of land in England, that has not been rendered famous in history, or dear to the inhabitants by some remarkable event, some deed of valor, some

monument of art, or some development of mind. Every hill top and vale, every forest, grove and glade, — the ocean which bathes its rock bound shores, — each island, river and stream, each sequestered dell and shaded fountain, — the daily life and evening pastimes, from prattling childhood to hoary age, — all, all are embalmed in the traditions of England. Her literature is redolent of that captivating scenery which nature and art have rendered so admirable; and the glorious feats of war, the splendid achievements of genius, and taste in peace, — with the names of her illustrious men, have been immortalized by her gifted bards, the undying echoes of whose thousand harps are yet heard in every passing breeze, and make vocal even the desert stillness of the star-lit night. These have rendered the whole island precious in the sight and memory of Englishmen. To them it is, indeed, a holy land, and ere it can become the prize of conquest, like Jerusalem, it must first be made desolate.

Knowing what has been the salutary influence, in one nation, of comingling wealth, intelligence, and industry over the entire surface of a country, should we not hasten to follow the example. It is an axiom in morals as well as physics, that well authenticated facts constitute the elements of those theories, by which general truths are evolved and principles established. In the history of the past then, we should behold mirrored the future; and if it is not reflected with that distinctness of outline and accuracy of detail, by which every object can be readily recognized, — still, the shadowings forth are so palpable to the philosophic eye, that they are confidently proclaimed as approaching realities; and thus, the revelations of exalted intelligence assume the imposing character of prophecy, when in truth they are but the inductions of reason, from the accumulated facts of ages.

The agricultural resources of Massachusetts are not inferior to those of Great Britain. The soil is naturally as fertile, and capable of being rendered as productive. All the cereal grains, vegetables and fruits there raised can be here cultivated, and the latter more perfectly. We have in addition maize, one of the most important, if not the greatest staple of New England, and silk is being successfully introduced, — a product, which is destined to be of as much consequence to the proprietors of land, as that of their flocks, and may rival the vast cotton crop of the south in value. Our domestic animals if not now generally equal, are rapidly becoming so. The facilities of intercommunication, by good roads, canals and rail ways are increasing in a manner which promise especial benefit to the farmers of the interior. Their industry will be encouraged, their prosperity advanced, and a more cheering aspect be given to large portions of territory, which have been

unable to compete with more favored localities, from the distance of a market and the enormous expense of transportation. But those terrestrial comets, which are traversing every star in our political system, and attract the gaze of the astonished world, as much as that, which now blazes in the heavens, will have an influence on national prosperity more beneficial, than that of the other was ever deemed baneful. By their potent agency distance has become a mere technical term of geographical illustration, and time has been substituted as the only true measure of the space by which places are separated, as well as that which divides events. It is of no moment what are the ranges of mountains, extensive plains, vast rivers and capacious lakes, which lie between the emporium of demand and the region of supply, — the steamboat and rail roads have given them a juxtaposition of existence.

The tide of emigration will be diminished, in proportion as the demand for labor is increased; and that it must be inevitable, when every water fall becomes the site of a Lowell and a Dover, which it requires no gift of prescience to announce, will be realized at no very distant period. Commerce, navigation, manufactures and the mechanical arts have received an impulse, throughout the north, which cannot fail to be experienced in every department of rural economy. Instead, therefore, of seeking employment in distant regions, the sons and daughters of New England will rejoice to dwell among the green hills of their own native land, where repose the hallowed ashes of their adventurous ancestors. If it should be urged that our population is even now too dense for the successful enterprise of the rising generation, it may be proper to inquire what number of inhabitants are maintained on the soil, in other and not more favored portions of the globe.

In England, where there is still so much land unsubdued by cultivation there are over two hundred and seventy persons to the square mile, which would give to Massachusetts more than two millions of inhabitants, instead of the six hundred thousand which it now contains.

By a census of the Chinese empire taken in 1813, the population, all of whom are subsisted upon the products of their own soil, amounted to 370,000,000; but enormous as it seems, the number to the square mile is not so great as in England. There are, however, large provinces whose inhabitants are so numerous that they average four, five and six hundred to the mile; and there is one, whose area is nearly five times that of this State, which has seven hundred to the square mile, which would give us 5,460,000. But as still more conclusive evidence of how many persons can be supported from the culture of the soil alone, there is an island on the eastern coast

of China, which contains only one thousand square miles, being less than a seventh part of this State, which has a population of 400,000, or 400 to a square mile. There is not a town upon it, the inhabitants living in hamlets and single houses scattered all over the surface, and the only articles cultivated are rice, cotton, millet, and culinary vegetables.

The difference between the number of inhabitants to the square mile in the United States and that of China is still more striking, as in the former there are only six while in the latter there are 268. If, therefore, our whole country should be as thickly populated, the census would be 589,600,000, and if the increase should continue in the ratio which it has done, during the last forty years, it would require only 125 for this vast accumulation, a period, but little exceeding twice that of our brief existence, as an independent nation.

If our climate is as congenial, our soil as teeming, and our skies more bright, why is it that a country life is not so fervently desired, — so much the theme of universal disquisition, and so much the object of unqualified admiration, as in other and far less propitious lands? Where, under the broad heavens, have been more lavishly bestowed whatever man can ask of a beneficent Providence, to supply his wants, administer to his comforts, and insure his felicity?

The topographical features of Massachusetts are more diversified, more interesting, and can be more speedily and perfectly embellished by cultivation, than even the northern Hesperides. The state is traversed in all directions, either by majestic rivers or copious streams. Lofty mountains, from whose rugged flanks gush forth perennial springs, and beautiful hills, clothed with forests to their very summits, give grandeur to the scenery; picturesque valleys everywhere invite attention, and promise as smiling and happy aspects as those whose loveliness is preserved in Grecian song; innumerable lakes, stangled with verdant islets, and floral stars, are scattered over the whole area of our territory. The sea coast abounds in capacious bays, broad estuaries, commanding promontories, and beetling cliffs; and in addition to our catalogue of superb forest trees, there is a profusion of shrubs, and wild flowers, which are so unrivalled in variety and splendor, that they constitute some of the most choice collections in the conservatories, sumptuous gardens and rural plantations of Europe.

The common idea associated with a residence in the country, is that of profit, — that an income should be realized from all expenditures there made. But why, it may be asked, make this distinction, so unfavorable in its effects, to the prosperity and improvement of the country? Are the

magnificent edifices, costly furniture, and luxurious indulgencies in cities and large towns, sources of income? Are they not, rather, intended to administer to the comfort and gratify the taste of the proprietors, without any regard to the cost, or any expectation of revenue? Why then should it be urged, that such investments should yield an income, because the location is on the borders of a river or stream, in the midst of a forest, or embowered in some secluded vale? The answer is difficult. Yet, on the other hand, it can be shown that a less extravagant expenditure in the country will produce infinitely more interesting and imposing results. It is not in buildings that money should be expended. The more simple and neat their structure, the better will they comport with our laws for the distribution of property, the genius of our government, and the habits of the people. Here architectural taste should be guided by economy. It is in the improvement of the grounds which surround the establishment, that is so much required, to render the country desirable as a place of residence. Here it is that wealth and intelligence and taste can do so much, — can produce such striking effects, and contribute more to the enjoyment of life, than it is possible to accomplish in the midst of a city, even by the lavish expenditures of a Semiramis.

Is not a garden, extensive grounds, umbrageous walks, verdant lawns, and sparkling cascades, quite as interesting objects, as the massive piles of brick and stone, which are wedged in continuous ranges, on the thronged and dusty avenues of a metropolis. Is not the distant landscape, whether radiant in the rich and various tints of vernal luxuriance, or clad in the gorgeous draperies of autumn, — the melodious concert of the birds, — the sunset splendors of the western sky, — the congenial serenity of summer's bland and dewy eve, —

The breezy call of incense-breathing morn,

The cock's shrill clarion, and the echoing horn, —

quite as elevating to the mind, soothing to the soul, and congenial to the heart; as sublime and inspiring as "the stir of the great Babel," and the deafening surge of that living deep, which resounds through all her gates?

Refinements of all kinds have a powerful influence in elevating the character of mankind, by enlarging the sphere of observation, curbing the out-breakings of the passions, fostering private virtue, and improving the public morals; and to prescribe the line of demarcation, within which taste shall be restrained, is as preposterous as to establish the limits of intellectual attainments. Every amelioration which has been made from the rudest, wildest, and most savage condition of the human race, may, with as much propriety be denounced as superfluous and extravagant. It is

the degree of omnipotence, that nations shall advance or retrograde, — that man shall rise or fall, from every point of time in his existence. But there is a consideration by which we must be actuated, in whatever we undertake, far above the attainment of the object sought. This means to be employed, the labor bestowed, the excitement produced is of infinitely greater consequence than the advantage of actual achievement. The latter is temporary, and often of little moment, while the former are of universal benefit and abiding influence. There are results of mightier import than those of mere acquisition, which are to be sought in the excitement, which is given to the most dignified attributes of the mind and the heart, and in those manifestations of genius, talent and enterprise, which the study, pursuit and exertion unfold. Education, instead of being confined in its scope and duration, is thus made co-extensive with individual existence, and the exalted characters which are formed in this rigorous school of intellectual discipline, are for all nations and all time. There is a moral grandeur in their lives, which renders them perpetual examples for emulous imitation, and the salutary effect on the human race, is as universal as the admiration in which their distinguished benefactions are held. Man can only estimate his own natural resources by experiment. We know not their extent or proficiency, until placed in those trying exigencies, those self-relying positions, where they become indispensable for immediate extrication, or to give assurance of ultimate success. It is from repeated trials of strength, that the eagle launches forth upon the tempest, from the lofty eyry of the mountain cliff, with the fullest confidence in the sustaining power of its wing, in the longest, highest and most daring flight.

If the principles which have been assumed are founded in truth, and the facts which have been alleged for their illustration are deserving of credit, why should there not be changes produced here, in relation to a subject, in which every citizen is so deeply interested, corresponding with those which have appeared in other nations?

May we not, then, confidently hope, that at no very distant period, the taste which has hitherto so unfortunately prevailed, will be reversed, and the country become the admired residence of those, who are most able to improve its natural features, by the assistance of the arts. There it is, that virtue and patriotism, benevolence and hospitality, philosophy and religion, innocence and poetry have most delighted to dwell. It was on the summits of mountains, or in the awe-inspiring shadows of the deep forest, that the ancient divinities were worshipped; and how much more appropriately are they the true temples of the living God; for where can man more fitly pour

out his aspirations and present the offerings of gratitude and praise, than when standing under the blue vault of the firmament, amidst the sublime and glorious works of creation.

(From the New England Farmer.)

INDIAN CORN.

T. G. FESSENDEN, Esq.—Dear Sir: In December, 1834, you published in the N. E. Farmer a communication from me, concerning a species of Indian corn, which I had planted the preceding season, the seed of which I had procured of Judge Bucl. Its chief recommendation, in my estimation, resulted from the fact, that it came to maturity about a fortnight earlier than any kind of field corn which the farmers in my neighborhood were accustomed to plant; thus anticipating the early autumnal frosts, and enabling me to sow my corn land with wheat in tolerable season. I expressed the opinion also, that it had been as productive as any other corn which I had ever planted; but as I had tried it but once, I did not feel so confident of its productiveness, as to commend it on that account. I have planted the same kind of corn the past season, and no other; and the result has fully equalled my expectations. I was able to gather my corn leisurely and finished sowing my corn and potato ground by the 3d of October. In former seasons, with a different species of corn, I was always hurried, and was seldom able to finish sowing wheat till about the middle of October, and in some seasons, not until after the 20th. Wheat sown so late, is more liable to blast, and is more exposed to be winter-killed, than that which is sown earlier, and has opportunity to get well rooted before the ground freezes up. Late sown wheat will sometimes produce a fair crop, but success is so uncertain, that it should be avoided when practicable.

I have taken some pains the past season to ascertain the productiveness of this corn, with some degree of certainty. In order to try the experiment, I selected a piece of ground, which, by actual admeasurement, contains one acre and twelve rods. This ground was planted the preceding year, about one half of it with potatoes, the other half with corn. This selection was made, not from choice, because I do not approve of planting the same ground for two successive years, and more especially with the same kind of crop. The result of this experiment shewed evidently that it is bad husbandry to plant the same ground twice in succession with the same crop, — for the corn on that part of the piece where corn grew the preceding year, was not so well eared, nor were the ears so large, as on that part which had been planted with potatoes.

In the beginning of May, twelve loads of coarse manure from the barn yard, were spread upon the

land, and it was then well covered under a furrow of five or six inches deep. Eight loads of fine manure, composed chiefly of earth that had been deposited in a low spot in the yard the preceding summer, were then spread upon the land, when it was harrowed with a light seed harrow, till the surface of the ground was well pulverized and the fine manure was mixed, and partly covered with the earth. The ground was planted on the 13th of May, in rows of three and a half feet asunder, with a space of two feet between the hills. The seed was soaked about 12 hours in warm water, mixed with plaster, planted five kernels in a hill, and at the first hoeing, thinned out, so as to leave but three stalks standing in each hill. The corn was hoed three times, and the last hoeing was performed early, about the 25th of June, some days before the corn began to show its tassels. I have long been of the opinion, that cutting or disturbing the fibrous roots just before the corn is about to set for ears, is injurious to the crop, as it impairs its capacity of imbibing nourishment at a time when it is most essential.

The cultivator was used at each hoeing, and the old practice of hilling up the corn at the last hoeing was dispensed with. The stalks were cut early in September, but not until they had generally begun to change their color, nor until many of the ears were fully ripe. The corn was not picked till the 30th Sept. and between that and the 5th of October was husked out and cribbed. From this acre and twelve rods of land, were gathered 217 bushels of ears of good sound corn and seven bushels of ears of poor corn, making 224 bushels in the whole. Had I anticipated so large a product, I would have preserved and threshed it by itself, in order to ascertain the exact quantity of shelled corn. But a part of it was husked and mixed with other corn before my curiosity to know the quantity was excited. From the experiments which I have made, I am satisfied that there were, at the time of husking, about half as many bushels of corn as there were of ears.

My crop suffered a considerable diminution from two causes. A little before the time for the first hoeing, I found that my neighbor's poultry had been very busy in the field, and had actually scratched and pulled up at least one fourth of the piece. This had to be planted over the second time, and was much less productive than the first planting.

While the corn was in the milk, a violent gust of wind passed over the field, and laid the whole of it almost prostrate. Many stalks were broken off and never rose again. But for these two causes, there would have been a considerable increase in the product, and an almost total ab-

straction of the poor corn. The green and mouldy ears were wholly attributable to these causes, and without them the poor corn would scarcely have exceeded one per cent.

I am, very respectfully, yours, &c.

SAMUEL LATHROP.

West Springfield, Jan. 1, 1836.

P. S.—Can you inform me, whether the seed of Lucerne, sown upon wheat ground in the spring of the year, will take as well as clover.

By the Editor.—Lucerne is generally, and we believe most advantageously sown in the spring, after the ground has acquired a degree of warmth friendly to vegetation, or about the middle of May. In England, the practice recommended by Arthur Young, Loudon, and other writers, is to sow *oats* or *barley* with the grass seed, and none of their cultivators, so far as we have seen, mention wheat as an accompanying crop with lucerne. But, perhaps, wheat would answer well for that purpose. We should be happy to have the opinion of practical farmers, who have succeeded in raising lucerne, on this point.

The most usual causes of failure in attempting to cultivate lucerne have been the want of a sufficient quantity of seed, and the smothering and starving of the young plants by weeds. After the lucerne has taken possession of the soil, it becomes a hardy plant, and will maintain itself in spite of intruders; but while young it is tender, and if the soil in which it is growing is infested with weeds, or with their seeds it will require as much care in their extirpation as a garden crop. In England it is often sown in drills, and cultivated with the hoe, and not unfrequently broad cast, without any other kind of seed to check or interfere with its growth.

SHEEP AND WOOL.—Sheep's wool is greatly modified by the breeding of the animal; for it is a coarse hairy substance, mixed with a soft down, close to the skin, on the wild Argali, to which genus all the varieties of the domestic sheep have been traced. That animal, and others with a similar coat, when placed in a temperate climate, under the fostering care of man, lose their long lank hair, and retain their soft wool. It has been ascertained that the female has more influence than the male on the form of an animal; but that the male in sheep, in particular, gives the peculiar character to the fleece.

The produce of a breed from a coarse-wooled ewe and a fine-wooled ram, will give a fleece approaching half-way to that of the male; and a breed from this progeny with a fine-wooled ram will yield a fleece differing by only one fourth from that of the sire; by proceeding in the oppo-

site ratio, the wool will rapidly degenerate into its primitive coarseness.

Four qualities of wool are distinguishable in the fleece of the same animal. The finest is upon the spine, from the neck to within six inches of the tail, including one third of the breadth of the back or saddle; this kind is called by the Spaniards *Floretta*. The second quality covers the flanks, and extends from the thighs to the shoulders. The third covers the neck and the rump; and the fourth is upon the lower part of the neck and breast, down to the feet, as also upon part of the shoulders and thighs, down to the bottom of the hind quarters; the Spaniards call this portion *Cayda*. The sorting of these four qualities takes place immediately after the shearing, by tearing asunder the several portions, and throwing each into a separate bin.

The hardness of some of the English wools does not depend entirely on the race, or the climate, but on certain peculiarities in the soil which affect the pasture. The Saxony sheep, being exposed to a less ardent sun than the Spanish, yield a softer fleece. Sheep pastured on the Cheviot Hills in Northumberland, though not of the finest woolled English breed, yield fleeces of remarkable softness, and have been refined still more by artificial means, particularly by smearing the sheep with an unguent composed of tar and butter, immediately after shearing them. The grease or yolk of the fleece is a species of soap secreted by the sheep, and consisting of oil with a little potash. Hence it serves to facilitate the scouring of wool by means of water alone, with which it forms a kind of sud or emulsion. It is most abundant in those breeds which grow the softest fleeces, and on the part of the back covered with the finest wool. The yolk, however, though favorable to the growing fleece, becomes injurious to it after it is shorn, and ought to be immediately removed, otherwise it will produce a fermentation in the wool heap, and render it hard and brittle, a change which takes place most rapidly in hot weather.

The long-wooled sheep of England are of four breeds: the Dishley or new Leicestershire; the Lincolnshire; the Tees-Water, and the Dartmoor. Our races of short-wooled sheep are principally the Dorsetshire, Hertfordshire, and South Down. The imported wools are almost entirely worked on the card, the coarser into carpets. Of late years, a wool of the merino fleece has been grown to great advantage in New South Wales, and imported in great quantities. It is fully equal to the best Spanish merino.

The English clothing wool has altered for the worse in its quality for the last ten years. There is a difference of one shilling a yard between cloths made of the two wools at the same price.

The English wool also wastes five pounds in the score, and the other only two and a half pounds by loss of animal grease.

The advance in foreign wools is owing in a great measure to the increase of the manufacturers on the continent, especially in Belgium, and to the successful competition of the goods of the latter with the English in the Grecian Archipelago.

There is no wool which spins so well as the improved Australian does, in consequence of the length of its staple and its softness; and it has increased so much in quantity of late, that in the course of fifteen years it will probably suffice for the supply of all the import wool to our manufacturers, to the exclusion of the Spanish and German wools. It is also better for combing purposes than any other description, and it is at present altogether consumed in the finest worsted goods, such as merinos and cassinets.

England grows about 995,000 packs, (of 240 lbs. each,) and imports 66,000 bags a year.—*Bell's (English) Weekly Messenger*.

CARROTS.

MR EDITOR.—As I have seldom had the pleasure of looking over the numbers of your very useful paper, I am by no means certain that the subject of this article may not be familiar to your readers; but presuming that "line upon line," is as applicable to agriculture as to morals, I am induced to communicate the results of my very limited experience in this branch of husbandry.

The soil best adapted to the cultivation of the carrot, is a deep sandy loam, uniformly rich to the depth that the root is expected to penetrate. Corn or potatoes are a good preceding crop; but I am unable to say whether they will successfully follow *Ruta Baga*. It has been asserted, with what truth I know not, that corn should not follow this turnip. It may be that this root, being a hearty feeder, extracts from the soil more than a fair proportion of some peculiar constituent of the corn plant. The land should be deeply ploughed in the fall, and in the spring a good coat of well rotted manure should be evenly spread upon the surface and harrowed in. Cross-plough and harrow smoothly; and the application of a roller, four or five feet in diameter, would greatly improve the preparation for this crop as well as for most others. With a horse, plough the back-furrows into ridges 1 1/2 to 2 feet apart; then with the head of a rake, or some similar instrument, strike off the crown of the ridges until they are 3 or 4 inches in width, and make a drill an inch deep in any manner that the ingenuity of the operator may suggest. The seed is then sown pretty thickly along the drill, and covered either with a rake head, or light hand roller, so as to be slightly pressed down,—as soon as the plants are well up,

at the first hoeing, all the surplus plants are weeds; *cut out without sparing*. In the culture of the carrot the crop is always injured by sparing the hoe and the weeding; keep the garden clean of weeds, and if you are desirous of a great crop do not allow two carrots to stand within three inches of each other. In harvesting, run a small plough with one yoke of oxen near the side of the range of carrots, and as deep as possible; by this means the earth is loosened, and if the rows are straight, one side of the carrot is nearly laid bare, this greatly facilitates the operation of gathering, as the laborers may then easily draw them by the tops and throw them into carts. Two pounds of seed are sufficient for an acre. For making the hollows on the ridges for the reception of the seed, I have used a wheel made of thick board, about 18 inches in diameter; the circumference bevelled on both sides to a sharp periphery, and managed by a slight frame similar to a common wheel barrow; any man may make such an one in an hour or two.

I think the carrot, for milch cows, or fattening cattle, is superior to any other root whatever, (possibly excepting the parsnip;)—For swine I have never used them. Horses are said to become remarkably fond of them, and many hundred tons are annually raised in the vicinity of Boston for feeding livery horses in the city. No crop will better pay for *extra* cultivation; and fine tilth is indispensable.—*Mechanic and Farmer*.

INFLUENCE OF THE STOCK ON GRAFTED FRUITS.

—On a recent visit to a friend in Hartford, Conn. we had ocular demonstration of the influence of the stock upon the fruit. Our friend had in his garden a pear tree bearing large summer fruit, which ere it was ripe became rotten at the core. The fruit being consequently worthless, he engrafted the St Germain pear upon several of the side shoots, and the Vergalue upon the top. The effect has been, to enlarge the fruits last grafted, and to accelerate their ripening at least a month. The St Germain, of which we took several, are of double the size of those grown on the tree from which the grafts were taken; the Vergalue is somewhat increased in size, though deteriorated in quality, and one of the fruits which we ate showed a partial rottenness at the core. The effect of growing Butter, or Melting pears, on the quince, a practice general in France, is to impart more solidity to the flesh. These facts may become important, as they seem to suggest a new means of crossing fruits, by which the maturity of those that ripen too late for a northern climate may be accelerated; and those which ripen too early for winter use may be retarded in their maturity. The grape affords a good subject for ex-

periment; and the Isabella, Catawba and Blands, may thus be brought to ripen their crops with more certainty and in greater perfection among us.—*Cultivator*.

NEW VEGETABLES.

VALPARAISO SQUASH.—I procured and planted some seeds of this kind of squash last spring, but did not succeed in obtaining any fit for use. The failure was probably owing to ill management.—They were planted rather late, and had no particular advantages of soil or cultivation. The plant evidently requires a warm rich soil, and a long season, though it is very probable that by giving them a very favorable situation, or by starting them in hot-beds, they would come to maturity here. I had the seeds of Mr R. G. Lincoln, of this town, who obtained them from the New England Seed Store, Boston. I received from Mr L. the other day, a present of half of a fine Valparaiso squash, weighing 27 lbs., raised in this vicinity by some one more fortunate in their culture than I was, though this was hardly as good as it would have been if it had got a little riper. But as it was, it was altogether superior, far superior, to any squash or pumpkin I ever saw. It scarcely needed any sweetening at all to make the finest pies I ever tasted. I think it is certainly worth the trouble, even if it is considerable, on account of its unrivalled excellence. Mr Lincoln will have more seeds to sell in the spring.

DALE'S HYBRID TURNIP.—I received from a friend, very late last season, a few seeds of this vegetable which has been of late years so much valued in England. The experiment the first year indicates that it will be very productive and valuable. I have a few roots which I will give to any who are desirous of obtaining the seed.

SANFORD HOWARD.

Hallowell, Jan. 1836.

BUCKWHEAT FOR FOWLS.—This grain given to fowls, tends to make them lay. Rye, on the contrary, is supposed to have a different effect.—*Maine Farmer*.

The raising of silk, (says the New York Transcript) has been introduced into some of our prisons; and will, with some assistance from the State Treasury, be made ultimately a source of profit. The Auburn State Prison has, the last year, produced a clear profit of near \$8000.

YOUTHFUL FEELING.—“AS I approve of a youth,” says Cowley, “who has something of the old man in him, so I am not less pleased with an old man who has something of the youth. He who follows this rule, may be old in body, but can never be old in mind.”

BRIGHTON MARKET, — MONDAY, FEB. 8, 1836.

Reported for the Daily Advertiser & Patriot.

At Market 370 Beef Cattle, and 1180 Sheep. 35 Beef Cattle unsold.

PRICES—Beef Cattle—A further advance has been effected, and we advance our quotations to conform to sales. A yoke or two of extra were taken at 40s. We notice prime at 34s 6d a 30s; good at 31s 6d a 34s 6d; small and thin cattle 24s a 28s 6d.

Sheep—More were at market than are wanted to supply the demand. We noticed 120 beautiful sheep from Franklin County—100 owned by Messrs Tucker & Hillman sold for \$10 each; and 20 owned by Maj. Severance sold \$10 1-2 each—all of which were driven by Mr Sherman. We also noticed the sales of a few lots at 16s 6d, 21s, 27s, and 28s 6d.

GARDEN SEEDS AT \$1 PER BOX.

Small Boxes Garden Seeds, containing a good assortment for a very small garden, for sale at \$1 per box.

Also—A very large assortment of Garden and Flower Seeds, raised in gardens connected with the Agricultural Warehouse, &c. now ready for sale and orders promptly executed.

GEO. C. BARRETT,
New England Seed Store.

Jan. 27.

WHITE DUTCH CLOVER.

600 lbs. very fine White Dutch Clover, (free from foul seed) just received from Holland, and for sale by GEO. C. BARRETT. Feb. 3.

SPLENDID FLOWER BULBS FOR WINTER.

WILL FLOOM IN THE HOUSE.

HYACINTHS —	<i>Amaryllis (most splendid flower.)</i>
Boquet Tendre,	<i>Gладиолус Псеиттицина.</i>
Groot Voorst,	<i>Polyanthus Narcissus.</i>
Parquin.	<i>Crocus.</i>
Grand Monarehe,	<i>Double Jonquills.</i>
Oronlates,	<i>Single do.</i>
Voltaire,	<i>Crown Imperial (of varieties)</i>
Temple of Apollo,	<i>Fritellera.</i>
Lord Wellington,	<i>Crocium.</i>
Madam Zoutman,	<i>Cyclamen.</i>
Madam Van Murkeys,	<i>Tulips, (assorted,) &c. &c.</i>
Gloria Florum,	Also—A large collection
L'Ami Du Cœur,	of splendid varieties of FLOW-
Pyramides des Roses.	ER SEEDS.
200 Assorted Double.	
200 Assorted Single, &c. &c.	

It being late in the season, and having a very large collection on hand, the above will be sold unusually low.

GEO. C. BARRETT.

Subscriptions and payments to the Silk Manual will be received by the following named

AGENTS.

- New York*—G. C. THORBURN, 11 John-street.
- Albany*—WM. THORBURN, 347 Market-street.
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- Bangor, Me.*—WM. MANN, Druggist.
- Halifax, N. S.*—P. J. HOLLAND, Esq. Editor of Recorder.
- St. Louis*—GEO. HOLTON.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES, Russetts and Baldwins.	barrel	1 50	2 25
BEANS, white,	bushel	2 04	2 12
BEEF, mess,	barrel	10 50	11 60
Cargo, No. 1,	"	8 50	9 00
prime,	"	7 00	7 25
BEESWAX, (American)	pound	25	27
BUTTER store, No. 1,	"	18	21
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	46	50
southern, geese,	"	42	45
FLAX, American,	"	9	10
FISH, Cod,	quintal	2 75	2 35
FLOUR, Genesee, cash	barrel	7 02	7 75
Baltimore, Howard street,	"	7 50	7 62
Baltimore, wharf,	"	7 25	7 37
Alexandria,	"	7 37	7 50
GRAIN, Corn, northern yellow	bushel	90	92
southern flat yellow	"	81	84
white,	"	74	78
Rye, northern,	"	1 05	1 06
Barley,	"	90	1 00
Oats, northern, (prime)	"	61	62
HAY, best English, per ton of 2000 lbs		22 00	25 00
eastern scrawed,	"	21 00	23 00
hard pressed,	"	21 00	23 00
HONEY,	gallon		
HOPS, 1st quality	pound	13	14
2d quality	"	10	12
LARD, Boston, 1st sort,	"	12	13
southern, 1st sort,	"	11	12
LEATHER, s'laughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	19	21
do. upper,	"	18	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	1 20	1 25
PLASTER PARIS, per ton of 2200 lbs.		3 12	3 37
PORK, Mass. inspect. ext. a clear,	barrel	22 00	23 00
Navy, mess	"		
bone, middlings, scarce,	"		
SEEDS, Herd's Grass,	bushel		
Red Top,	"	75	90
Red Clover, northern,	pound	10	11
SILK COCOONS, (American)	bushel		
TALLOW, tried,	ewt.	8 50	9 00
Wool, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	65
do. 3-4ths do.	"	55	58
do. 1-2 do.	"	40	50
do. 1-4 and common	"	40	45
Native washed	"	38	60
Northern method, { Pulled superfine,	"	58	60
{ 1st Lambs,	"	50	53
{ 2d do.	"	40	41
{ 3d do.	"	30	35
{ 1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

RETAIL PRICES.

		pound	14
HAMS, northern,	"	11	12
southern, and western,	"	8	9
PORK, whole hogs,	"	11	15
POULTRY,	"	18	20
BUTTER, (tub)	"	22	25
lump	"	20	25
EGGS,	dozen	30	50
POTATOES,	bushel	1 75	2 00
CIDER,	barrel		

FESSENDEN'S SILK MANUFACTURE

AND PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I.

BOSTON, MARCH, 1836.

NO. 11.

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BOSTON, MARCH, 1836.

Remarks of Mr Fessenden, from Boston, in the Legislature of Massachusetts, Feb. 25, 1836, on a Bill for the Encouragement of Silk.

The culture of the mulberry tree, and the manufacture of silk do not present us with anything new, doubtful or visionary. The art of silk culture, though in its infancy in Massachusetts, is, in some countries, coeval with the dawn of civilization. In North America, while we were colonies under Great Britain, from 1755 to 1772, premiums were bestowed, by a patriotic association in London, called "*The Society for the Encouragement of Arts*," on a number of persons in Georgia, South Carolina and Connecticut, for planting mulberry trees, and for cocoons, and raw silk; and those premiums laid the foundation for the silk-culture in those States.

In the year 1828 there was published at Washington, in a large thick pamphlet, a "*Letter from Richard Rush, Secretary of the Treasury of the U. S. transmitting the information required by a resolution of the House of Representatives, of May 11, 1826, in relation to the Growth and Manufacture of Silk, adapted to the different parts of the Union.*" This communication was dated February 7, 1828, sent to the House of Representatives, and referred to the Committee on Agriculture, of that House, April 21, 1828. The pamphlet was of royal

octavo size, and contained 224 pages, together with a great number of cuts explanatory of different processes in the silk manufacture. According to this valuable state paper, it was found that after the war of the revolution the culture of silk was renewed, and in 1789 two hundred pounds weight of raw silk were made in the single town of Mansfield, in Windham county, Connecticut. In the year 1810, the value of the sewing silk and raw silk, made in the three counties, New London, Windham and Tolland, was estimated, by the United States' Marshal, at \$28,503; but the value of the domestic fabrics made from the refuse silk, and worn in those counties, was not taken into consideration. This may fairly be estimated at half the above sum. In 1825 it was found that in Windham county the value of sewing silk and of the domestic silk fabrics was double what it was in 1810, (having doubled in three years) and then amounted to about \$80,000. It was also found that sewing silk was part of the circulating medium of the counties of Windham and Tolland, and that it was readily exchanged at the stores for other articles, on terms which were satisfactory to both parties, and that the balance of the account, when in favor of the seller was paid for in silver.

There is, at this day, no doubt of the profits which attach to the *skillful* as well as diligent manufacture of silk. But it may be asked, how is that manufacture connected with the *farming interest of Massachusetts*, as its advocates assert? To this I reply, that farmers possess not only that interest, which is common to, and binds together, the three great branches of human industry, Agriculture, Manufactures and Commerce, but the foundation, and first stepping stones of the Silk Culture are Agriculture and the pursuits of rural economy. The raising of mulberry trees, and the

furnishing of mulberry leaves for feeding silk worms, is as much the business of the farmer, as the raising of corn and potatoes. We have many thousands of acres in this commonwealth, which are thought to be almost totally unfit for any agricultural purpose, but would prove very valuable for the raising of mulberry trees. Dry, stony soils, descending to the south produce mulberry leaves of a better quality than rich levels or lands with a northern aspect. I hope the time will come, in which the sides and the summits of every one of the thousand hills of old Massachusetts will be decorated and crowned with mulberry trees. In that case, if silk manufactures flourish, whether they belong to the fire side and farm buildings of cultivators, or to incorporated companies, mulberry leaves, as well as mulberry seeds, seedlings, cocoons, &c. will be articles in as regular demand in market as beef, flour, or any article consumed in a family.

Dr Lardner states, that in many parts of France and Italy mulberry leaves are commonly sold in market by weight, and that persons, who rear silk worms are often wholly dependent on this source for a supply. In other places mulberry trees are hired for the season, and from four to six francs, (about 75 to 110 cts.) are paid for the use of each tree.

Some have objected to incorporating silk companies, with the right to *grow* as well as to *manufacture* silk, lest the corporators should raise the leaves in such quantities as to prevent their sale by farmers in the neighborhood. But if the manufacturing part of silk culture succeeds, there will always be good encouragement for the agricultural part; and silk companies might as well attempt to monopolize air or sunshine as the growing of mulberry leaves. If silk factories flourish, (and I think they will flourish, if we give them a little encouragement at their commencement) those factories will require mulberry leaves, cocoons and raw silk to some hundred times the amount of all that the owners of such factories or persons engaged in their business can ever think of raising or reeling themselves. The demand for mulberry leaves and cocoons, for which they must be almost wholly dependent on the farmers, will increase with the supply; but without a com-

petent supply to commence with, there never can be much demand for those articles. Silk companies and their workmen will have their own appropriate avocations to attend to. Artists who have served apprenticeships to the making of different sorts of silk fabrics of nice texture and high price, engineers capable of constructing and superintending the employment of those efficient and gigantic laborers, *power looms*, and *steam engines*, would be foolishly set to work in gathering mulberry leaves; usurping the places and occupations of the farmer's women and children. This would be worse than putting Hercules to the distaff. It would be an absurdity equal to the employing of steam engines of forty horse power to pare apples, or to give motion to a straw cutter; or to use a railroad car to drive cows to pasture. It is a truth that the agricultural part of producing silk may usefully employ the hands of a cripple, a child or an idiot, and some branches of the mechanical and manufacturing part may task the mental powers of a Bacon, a Newton, an Arkwright, or a Fulton. The Farmer who refuses to patronize, or who uses his influence in this honorable body to prevent legislative encouragement to the culture of silk, acts a part in as direct opposition to his own interest as if he were to oppose the franchise of a market in Boston, or to head a mob to inflict Lynch law on market men.

A strong argument in favor of the culture of silk is that it will neither interfere with, nor supersede, any other kind of domestic manufacture. And some branches of silk culture can never be taken out of the hands of the husbandman and his family by the great wholesale manufacturers. This, however, is not the case with regard to cotton and woollen manufactures. I can remember when nearly all the cotton and woollen goods used in the country were of domestic manufacture, products of the spinning wheel and of the hand loom. Cotton as well as wool was carded, spun and woven by the farmer's daughters and female hired help; and for a farmer, or his family to wear any apparel not manufactured wholly, or in part by the females of his household, would be held very disreputable extravagance.

We, however, incorporate, and I am willing that we should continue to incorporate, companies

to manufacture woollen and cotton goods by water and by steam power. We thus sanction the use of, and lend a hand in establishing certain agents and machines which have rendered some branches of domestic industry entirely obsolete, and caused family spinning wheels and looms to be as much out of fashion as high heeled shoes and hoop petticoats. This is the less to be regretted because substitutes for such wheels and looms may perhaps, be found in the mulberry hedge, the farmer's cocoonery and the domestic silk spinner.

Many persons are of opinion that large factories are greatly and permanently injurious to domestic industry, and to the greatest good of the greatest number. To such erroneous notions I beg leave to oppose the facts and the reasons contained in a "Report of a Committee of the House of Commons in Great Britain on the Woollen Trade."

"Your committee have the satisfaction of seeing that the apprehensions entertained of factories are not only vicious in principle, but they are practically erroneous, in such a degree that even the very opposite principles ought to be reasonably entertained. Nor would it be difficult to prove that the factories, to a certain extent at least, and in the present day, seem absolutely necessary to the well being of the domestic system; supplying those very particulars wherein the domestic system must be acknowledged to be inherently defective; for it is obvious that the little master manufacturers cannot afford, like the man who possesses considerable capital, to try the experiments which are requisite, and incur the risks, and even losses, which almost always occur, in inventing and perfecting new articles of manufacture, or in carrying to a state of greater perfection articles already established. He cannot learn, by personal inspection, the wants and habits, the arts, and improvements of foreign countries; diligence, economy and prudence, are the requisites of his character, not invention, taste and enterprise; nor would he be warranted in hazarding any part of his small capital. He walks in a sure road as long as he treads in the beaten track; but he must not deviate into the paths of speculation. The owner of a factory, on the contrary, being commonly possessed of a large capital and having

all his workmen employed under his own immediate superintendence may make experiments hazard speculation, invent shorter or better modes of performing old processes, may introduce new articles, and improve and perfect old ones, thus giving the range to his taste and fancy, and thereby alone, enabling our manufactures to stand the competition with their rivals in other countries. Meanwhile, as is well worthy of remark, (and experience abundantly warrants the assertion,) many of the new fabrics and inventions, when their success is once established, become general among the whole body of manufacturers; the domestic manufacturers themselves thus benefiting in the end from those very factories which had been at first the objects of their jealousy. The history of almost all other manufactures in which great improvements have been made of late years, in some cases at an immense expense and after numbers of unsuccessful experiments, strikingly illustrates and enforces the above remarks. It is besides an acknowledged fact that the owners of factories are often among the most extensive purchasers at the halls, where they buy from the domestic clothier the established articles of manufacture, or are able at once to answer a great and sudden order; while, at home, and under their own superintendance, they make their fancy goods, and any articles of a newer, more costly, or more delicate quality, to which they are enabled by the domestic system to apply a much larger proportion of their capital. Thus the two systems, instead of rivaling are mutual aids to each other; each supplying the other's defects, and promoting the other's prosperity."

When I first began to turn my attention to silk culture, I was apprehensive that the climate of New England was not favorable to that branch of industry. I thought that the Southern States would have greatly the advantage of the Northern by reason of their warmer and longer summers; and that, by obtaining several crops of cocoons in a season, our brethren in that part of the union would possess such superiority as to render all competition of the inhabitants of New England unprofitable if not impossible. But reading the following passage in *Dr Lardner's Treatise on the Culture of Silk*, together with some other consid-

erations has changed my opinions on the subject.

Count Dandolo, (a celebrated Italian silk culturist) is of opinion, that in Italy it is disadvantageous to obtain more than one crop in each season. He affirms that the mulberry tree cannot bear the constant stripping of its leaves without injury. "All things considered" says he, "I am well persuaded that one of our good crops will be equal in produce to any number that may be gathered in a year." If then one crop a year is all that can be advantageously obtained in a country so famous for the production of silk as Italy, our warm season in New England is long enough and warm enough for that kind of culture.

The reason why the advance of silk culture has been so slow, in places in which it has maintained only a languishing existence, or at best a feeble progress for many years and even centuries, has been the want of that general information relative to the growth and manufacture of silk, which our New England habits of investigation together with our printing presses will supply. If A. makes an improvement of any consequence, B. C., &c. to the end of the alphabet will soon be in possession of it. The press gives universality to every improvement in the arts. Any labor saving machine, contrivance or discovery, diffused by our locomotive omnipresent newspapers, and other periodicals, instead of being confined to the closet of the philosopher or the work shop of the mechanic, soon becomes as common as day light.

But I am told that no capital, nor incorporated company is requisite for the manufacture of silk. That half an ounce of mulberry seed, and land enough to sow it on, are all that are necessary to begin with. Very well, neither is capital necessary to commence operations in making a railway or a canal, say one hundred miles long. A spade and a pick-axe are alone wanted, yet, we, very properly, incorporate companies for constructing canals and railways. A single laborer might break ground for forming a canal across the isthmus of Darien, to unite the Atlantic with the Pacific ocean; but, if we wanted to make a good job of it we should incorporate a company with a large capital.

If Massachusetts gives no encouragement to silk culture, but seems to look upon it with a

jealous eye, and extends to our infant manufactures a hard and a heavy instead of a helping hand, we shall induce artists and capitalists to choose their locations in other States. Connecticut, Vermont, New Hampshire, Maine, &c., will not fail to take advantage, of such illiberal and short sighted policy. But we have no reason for complaint or apprehension; and believe that this enlightened Legislature will act in accordance to the maxim that a judicious liberality is the best economy. In praying for acts of incorporation we do not ask for any exclusive right, and are perfectly willing that others should build silk factories. Neither do we ask for money from this Commonwealth to carry our plans into operation. We only petition for the privilege of expending, under the sanction of the Legislature, our *own money*, in a way, which, if it succeeds will greatly benefit the public, but if it fails will injure none but your humble petitioners. Companies for the growth and manufacture of silk have lately been formed, and have gone, or are going into operation in Providence, Concord, N. H., Hartford, Conn., Poughkeepsie, N. Y., Warren county, N. Jersey, several parts of Penn., Columbus, Ohio, &c. Some of these, I am well assured, and all, I believe, have lands, and the privilege of growing as well as of manufacturing silk.

There are some advantages which silk culturists of the present day enjoy, and which give them superior means to attain their objects, to those within the knowledge and reach of their predecessors. The facility of diffusing information by means of the spirit of investigation and the power of the press have been adverted to. To these we may add the introduction of the Chinese Mulberry, the invention or improvement of the power loom, and the native characteristic ingenuity and inventive faculties of the people of New England. If the Chinese mulberry can be acclimated, made to endure our New England winters, as we have many reasons for believing, it will give a new and improved character to silk culture by increasing the quantity and facility of raising food for silk worms. And the quality of the silk which is formed from leaves of this, is said to be superior to that which is obtained from any other plant, and the cocoons of a larger size. The Chinese

mulberry plants are injured or destroyed by kindness, by being grown on too rich a soil, which causes the wood to be formed faster than it can be ripened, but the mistakes in its culture will be rectified by time and experience, and the acquisition of the plant, will I think, give a new and bright aspect to our silk culture.

The invention and application of the power loom to weaving silk, by Mr Gay of Providence, will also, I believe, tend to produce a new era in this art. By this valuable improvement it appears that an individual may, by attending to four looms produce 100 yards a day of woven silk.

Mr F. said that silk ought not to be viewed as a mere article of luxury. That, with the improvements which the art of silk culture appeared capable of attaining, not only the cheapest sort of garments for laborers might be made of refuse silk, but, he believed, (though he might be too sanguine and somewhat of an enthusiast in his anticipations) that vessels for sea might be fitted with this material. He thought that the time was approaching when not only the rigging and sails, but even the cables of ships, &c. would be formed of silk, the cheapest and strongest material which nature and art could furnish for those important purposes.

(From the New England Farmer.)

TRANSPLANTING FRUIT TREES.

Mr Editor:—As the season is fast approaching, which in my humble opinion is the proper season for transplanting most kinds of fruit trees, and as most people entertain different opinions relative to the proper time and method of starting trees from the nursery, and transplanting, I take the liberty to offer through your valuable paper, the N. England Farmer, a few practical remarks, that others may profit by my experience, if they see fit.

My knowledge of the business is founded on practice and observation. I have been personally engaged in the business of transplanting both large and small trees, more or less, for the last twenty years, into all kinds of soil (that we have in this vicinity), and at all seasons of the year, and operated by all of the different methods that I ever saw or heard of. And as far as my observation has extended, I will make a brief statement of the success and disappointments that I have met with. I prefer starting trees from the nursery in the autumn, as the sap at that period is all down and safely deposited in the roots (or some where else); I dig a deep trench about two feet in depth, in a somewhat sheltered situation, and pack or head the trees in as close as I possibly can,

taking care to sift the dirt well in among the roots; if open spaces are left, the roots will mould, which injures them very much. The roots being buried deep, vegetation will be kept back in the spring of the year, which will give ample time to prepare the ground, and have it in good order for planting; likewise the operation of transplanting may be delayed some weeks later than if the trees were started from the nursery in the spring. I manage trees that are started early in the spring in the same way. The trees in E. Plimney, Esq.'s orchard in Lexington, that took the first premium of the Massachusetts Agricultural Society, about 5 years since, if I mistake not, were all started from the nursery in the autumn, and were not transplanted until after planting the ground with vegetables or grain, the next spring—probably about the 1st of May; and where will you find another orchard like his; perhaps not in America. A farmer that glories in his profession would profit more, and be more gratified in visiting his orchard, than he would the falls of Niagara. In starting trees from the nursery, I am particular to loosen the soil around them with a stiff tined fork, which starts the dirt from the root and prevents the large roots from splitting, or the small fibres from breaking off with the dirt, when you lift the tree. Then with a sharp spade I cut off all the horizontal roots I possibly can, at least 18 inches from the body of the tree, if the distance between trees will admit; if the trees are large I cut further. I then raise the tree perpendicular, or nearly so, by a steady pull, after which I immediately cover the roots with a wet mat, or some kind of rubbish, to prevent the roots and fibres from drying; if the trees are to be transported any distance they should be matted immediately, or if to head in, or transplant, no time should be lost, as the fresher the roots the better the tree will thrive.

Now, one word about the mutilating process, in which I differ from most practical men, both in the animal and vegetable kingdom. Before planting: I trim both root and branch; the roots, by cutting off all ragged ends and bruised places. If the tree is tender and difficult to make live, I cover all such places with grafting composition (viz. two parts beeswax, one tallow); the tops of the trees. I trim in proportion to the loss of roots; the tap roots of trees and plants, or pig's-tails, I never cut off (reader, keep cool!): I should as soon think of mutilating children's feet, in order, when they become men, they might walk easier. Nature has furnished both for very good and important purposes; cut them off, and you cut a link out of nature's chain. I was much pleased in reading Mr Claggett's very able remarks in the N. E. Farmer, of the 17th ult. against the general practice of topping Indian Corn; his ideas upon that subject, I think, are founded upon correct

principles, and are in perfect accordance with my method of practice.

And now, Mr Editor, if you or any one of your subscribers will offer any good reason in favor of mutilating either tap roots of trees or plants, tops of Indian Corn, or pigs (or any other animal's) tails, I for one should like very much to see them.

Apple trees I prefer setting in rows 40 feet apart each way. The pear, peach, plum and cherry, 20 feet or less will answer. The peach will do well, if the nature of the soil will answer, between apple trees, as they are short-lived, and will be out of the way before the apple trees require the whole of the ground. In digging the holes after the ground is staked out, I dig around the stake considerable larger in circumference than the roots extend, (taking care not to move the stake,) and as deep as the ground has been ploughed, and no deeper upon any account whatever, — unless the subsoil or pan is clay or gravel, and very hard and compact; in which case I loosen the bottom of the hole with a pick or bar, in order to give the tap root a chance to go down.

To dig holes 2 or 3 feet in depth, and fill up with manure, top soil, or small stones, as many are in the habit of doing, and which I have done myself, is in my opinion a very bad practice, and has a bad effect. Trees in general have three distinct classes of roots, at least they seem calculated to answer three different purposes. The first tier or class naturally run horizontally with the surface, or nearly so, and are covered with numerous small fibres or feeders, which lead to the surface in search of food. The second tier or class run down nearly on an angle of 45° from the body, and seem calculated for the purpose of stays to support the trees; they contain but few if any fibres; they twist about and operate like an auger, in penetrating the land far; they naturally run crooked for the better purpose of holding; the ends are generally clumped or blunt, and in old trees begin to decay with the limbs. The third tier or tap roots, in most trees, run down perpendicularly with the body of the trees, and seem calculated for a double purpose, that of a stay to hold down with, and likewise to draw moisture from the bosom of the earth; (then why cut it off?) By digging deep holes, and filling up with manure or other loose materials, the tree can not have that support that it naturally requires. Likewise it serves to draw those roots, which naturally run horizontally down, among the other class or tier of roots, after which they have to find their way out of the hole the best way they can, as they are naturally great travellers, and will not bear confinement, which fact I ascertained by removing about 100 trees that I lost by the frost in 1832. They had been set about 5 years, nearly

one half of them over holes that had been filled up with rich earth, sods, &c.; those that were set on the hard pan after the second or third year, grew faster, and did better than those set over holes; and when I came to remove the dead ones, I found the roots to have taken their natural direction, and had extended much further than those that were set over large deep holes.

I prefer digging the beds or holes several days before transplanting, taking care to heap the dirt in order to have it dry. I like to have the earth moist, but not wet; if it is too moist it will not pack well around the roots. Before I commence setting, I draw in about two inches or more, (which depends upon the depth of the hole,) of loose fine soil, and spread it even on the bottom; I then pull up the stake, and if the tap root is large, I make the hole larger to receive it. I then press the tree down so that the brace roots may rest solid on the bottom, then I have a boy or man to steady the body of the tree, and another to sift the fine dirt in upon the roots, with a corn riddle or from a broad shovel; while I with my fingers pack the dirt as close and as tight around the roots as I possibly can; taking care to give each and every tier of roots their natural direction. I never lift the tree up and down, as many are in the habit of doing, or press the earth down with my foot, until the hole is filled in even with the surface of the ground. After which I tread down so as to leave it a little concave. If a tree has good roots, and the earth is well packed around it at the time of planting it will not require staking. It is said by some, that it is necessary to mark the tree before starting, so as to set the same side to the south that it grew in the nursery. I have tried the experiment frequently, but could never discover that it made any difference. It is likewise said that trees make more wood the south than the north side; possibly they do in Greenland, but in the latitude of Boston, I doubt very much whether the sun has that effect. At the time I lost my trees in 1832, part of them I sawed off below where they were killed, in order to engraft; and I as often found the heart of the tree to be as near the south as the north side. The sap has regular channels to run in, and there is probably as many, or they are as large upon one side as the other. After an orchard is set, I think it is best to keep the land in tillage for several years, or until the ground is well filled with manure, and the roots well extended; and whenever it is seeded down to grass I should sow nothing but clover, and plough it as often as every third year.

DANIEL CHANDLER.

*Farm School Island, }
Feb. 23, 1836. }*

Gauze is supposed to have originated in Gaza, in Palestine; hence its name.

EFFECTS OF LIGHTNING.—Persons apparently dead from lightning have been recovered by repeatedly throwing cold water over the *whole* body. Many instances are recorded. The Rev. Mr Steel, of Paris, in the State of New York, has lately in the newspapers mentioned a case of this kind. A lady was with her husband in the house, and the latter was struck with lightning. The lady happily recollected having a few days before read in the newspapers of the efficacy of cold water, and had the presence of mind to make a trial of it; on the effusion of the first bucketful he began to move, and on the repetition of a few more, was restored to sense and health. If, during the recovery, the pulse is slow and extremities cold, bleed largely at the arm. A gentleman now living in Johnson county, (R. Gully, Esq.) was a few years ago struck down by lightning, and recovered by exposure to a heavy fall of rain.

The above floating paragraph we copy, because we understand that a circumstance recently occurred in this town, which favors the theory therein stated. Mrs Cannon, whom we mentioned in our last as having been struck down with lightning, owes her life to the providential circumstance of a bucket of water having been thrown upon her by a little boy in the fright and the delirium of the moment, who appears not to have known what he did, or why he did thus. Indeed, for some days he was afraid to tell that he did throw water upon the insensible patient. An instance is also mentioned of a gentleman at the West being struck down with lightning, and with so great force that the electric fluid, on entering his body "tore his coat, vest and shirt into shreds, burnt the hair from one side of his head, crossed his breast, passed down the extremities, and out through his shoes, perforating them with holes as though buck shot had been forced through them; in some places breaking the skin, and scorching it in its whole course, so as to give it the appearance of an extensive burn." And yet it is said this individual is in a fair way for getting well, in consequence of plentiful effusions of cold water upon the breast and head, and copious bleeding. Remedies of this nature should be known and treasured up in the mind by every one.—*New Bedford Times*, 1830.

PHILOSOPHICAL EXPERIMENT.—Fresh water may be extracted from salt water by the following simple process; a common hoghead is provided with a false bottom, about three or four inches above the lower head. This false bottom is perforated with a number of holes, and over them a filter of flannel. The barrel is then nearly filled with the finest sand, beat down very hard; a tube, communicating with the space between the two bottoms, is extended to a convenient height above the top of the barrel. The sea water is poured

into this tube, and pressing every way, according to its altitudes, it endeavors to force its way through the sand to the top of the barrel, from whence, by this mode of filtration, it is drawn off fresh, and fit for use. Any other filter will do as well as flannel, which will stop the sand, and admit the water. The saline particles being heavier, and perhaps differently formed, meet with obstructions from the sand, and are left behind.

SILK.—The imperishable nature of silk, even under circumstances peculiarly unfavorable to the preservation of animal substances, forms another of its qualities which is deserving of remark. Some years ago, the sexton of the parish of Falkirk, in Stirlingshire, upon opening a grave in the churchyard, found a riband wrapped about the bone of an arm, and which, being washed, was found to be entire, and to have suffered no injury, although it had lain for more than eight years in the earth, and had been in contact with a body which had passed through every stage of putrefaction, until it was reduced to its kindred dust.

(From the *Genesee Farmer*.)

IRRIGATION OF MEADOWS.

The advantages of this operation must be obvious to every one who has observed the luxuriance of the grass in swales and low grounds which are kept moist by streams; and an additional proof is furnished by the light crops of hay on dry knolls. The following account of a simple and efficacious mode of performing it, is copied from Sutcliffe's *Travels in North America*. "In many parts of North America, and particularly in this neighborhood, (vicinity of Philadelphia,) it is the practice of many farmers to reserve about 15 or 20 acres of land for hay, which they continue to mow from one generation to another, many of them laying on but little or no manure; but taking the advantage of situation where the land may be easily irrigated or overspread with water from time to time. By this means they obtain heavy crops of grass, without the aid of manure, and thus supply themselves with winter fodder at an easy expense. On inquiring of two very respectable farmers, they informed me, that, upon an average, they got about *two and a half tons* per acre, each year, upon this plan. The land usually chosen for this purpose, is not a dead flat or marshy land, but commonly the two sides of a narrow valley of easy ascent on each hand, having a small stream running through the bottom.—When the land is to be watered, the stream at the upper end of the valley is diverted from its natural bed, and is conducted in narrow channels along each side of the valley, on as high ground as the head of the stream will admit; and by placing obstructions to the current of the streams, in dif-

ferent parts of the artificial channels, the water continues to trickle down the sides of the valley, so as plentifully and regularly to water the roots of the grass, but not in such quantities as to cover the herbage."

We observe that some writers recommend the admission of the water upon the meadow not till late in spring. This is undoubtedly an error. One of the chief uses of irrigation is to convey, by means of the water, fertilizing matter over the surface, in order to enrich it. Consequently the greatest benefit from this cause, is to be derived when the streams are high and muddy, and filled with fertilizing substances. For the same reason, streams from cow yards, dung heaps, &c. should be conducted over the surface of meadows. And, as in many places, our public roads are made of the richest materials, streams filled with their washings may sometimes be turned upon grass lands with the greatest advantage.

For the same reason also, the water, especially where the artificial stream is of any considerable size, should be conducted by a very gradual descent, so as to form a slow current, as it is only then that it deposits the matter which it contains. "If water intended for irrigation moves slowly, it leaves its riches behind it: if it runs rapidly, it carries away the farmer's riches with it."

In order that the artificial channels may be made with a regular and very slight descent, an instrument for taking levels is absolutely necessary. This may be a horizontal rod (with joints for sight at each end) kept level by means of a plumb line suspended alongside of another rod attached perpendicularly to the former rod. Or a level may be made with a broad shallow vessel filled to the brim with water; this vessel may be supported on a stand made by inverting a staff in a hole in the centre of a small square board; the vessel is placed on this, and may be made level by inserting wedges under it. This will be found more convenient than the former instrument. In using it, it may be placed on a spot of ground three or four feet lower than the intended channel, and, looking across the surface of the water, observe the line where it strikes the ground. Let another person place small stakes at convenient distances along this line; and through these stakes the channel is to be cut. In order, however, that there may be a little descent in the channel, the stakes must be varied accordingly. Another way of using it is to place it at the head of the intended channel, measure its height above the surface of the ground, and observe at what places on the ground it strikes a mark, on a rod held by another person, at an equal height from the surface. Another way of making a level is to make a small dam in the stream, at each end of this dam to insert perpen-

dicularly, a stake in the water, so that the top of each may be precisely the same distance above the surface; by looking across the tops of these stakes, the level is determined.

The water is generally taken from the channel by causing it to overflow the bank, or by removing a part of the bank; a safer and more uniform method of doing it, is to place small beams in the bank with holes in them, through which the water may flow.

From the New English Farmer.

FARMER'S WORK FOR MARCH.

Cut, split and pile wood for your fire-places and oven, till you have at least as much as you will use for one year from this time. We have no very strong objections to your using a quantity of green wood in winter for back logs and fore sticks, in open fire-places, unless you have stone, or iron substitutes for said articles. But to use green wood in summer for cooking is monstrous; and if we ever come to codify domestic economy we shall make it criminal. We shall place the omission to provide wood for summer's use, during or before the month of March, under the head *laches*, in English, laziness; and authorize your better half to impeach you in a certain lecture, and inflict a dreadful sort of punishment, which the learned style *objurgation*, but vulgar folks call *scolding*!!

This is about, if not precisely, the time to cut scions for grafting. They should be taken just as the buds begin to swell, and placed with their lower ends in the ground in some dry part of a cellar till wanted. They should be cut from the extremities of the branches of the most thrifty and the best bearing trees; sever the scion from the trees in the old wood, leaving enough, including the bulb which separates the two last years' growth, after being prepared for insertion to form the wedge.

It is high time for us cultivators to be making preparations to take the field furnished with every implement necessary to force the stubborn soil to yield the tribute due to agricultural skill and industry. Every tool and implement which will be wanted for use the ensuing season, should be critically inspected, thoroughly repaired, and such new ones of the best quality added as will, probably, be needed when we may have less leisure to select and procure them. None but a rich farmer can afford to use poor tools, and if a wealthy cultivator undertakes to carry on farming with dull, unhandy, ill-constructed implements, he is in a fair way to become as poor as he is foolish and improvident. The signs of a poor farmer, and the indications of a good farmer, are at least as legible in his farming tools as in the appearance of his stock, his crop or his farm buildings. Covering over wooden as well as iron tools frequently with oil or grease will have a tendency to preserve them.

Take a critical survey of your fences, repair every breach, and keep your cattle from your wood lot with as much care as you would from your corn field. As soon as the snow disappears you will please to parade your pastures, with a company of boys, by way of light infantry, and beat about and spread evenly those petty manure heaps, which, without such spreading, would be of little or no service.

Grain, or roots for fattening cattle, or swine, will go about one third farther, if steamed or boiled, than if used raw; and when it is wished to cook food for cattle in small quantities, it may be done evenings over a kitchen fire.

CHAFF AS A MANURE FOR STRAWBERRIES.

Among the selected articles of this number will be found a very interesting essay on the various kinds of Strawberries, and the different modes of cultivating them. We wish that this most delightful fruit were more attended to. The general impression has been, that our's is not the proper climate or soil for its successful cultivation; but this is evidently an error. We have seen as fine flavored and as large fruit of this kind, growing in our gardens, as any that we have ever met with in a more Northern latitude. When properly attended, we know of no fruit which is more profitable. Last season, we planted a half acre of these berries. We picked from the land thus planted one bushel and a half, on an average, per day. The season for picking lasted six weeks, allowing five days to the week, was equal to thirty days. The amount picked, therefore, was forty-eight bushels for the entire season. These we readily sold at 25 cents per quart, which yielded us the aggregate sum of \$360. This estimate is far from being exaggerated; on the contrary, it will appear much below the mark, when it is taken into consideration, that we used liberally of the fruit for our table, and sent out to our friends.

Our mode of cultivating the plant is this—early in December or January, and in some cases, even as late as February or March, we cover our Strawberries with pine or other straw. This we set fire to, and thus consume all the decayed leaves and suckers of the plant, which may have been left from the last season. Immediately after this operation we cover the bed with a moderate portion of cowpen manure, or oak ashes, (we prefer the latter if we have it) and over this lay rice chaff two or three inches thick.

The chaff, together with the manure, impart warmth to the land, and cause the plants to spring up much earlier than they otherwise would. The berries are sooner in market, bear larger and longer in the season, and are in every other respect superior to those cultivated in the ordinary mode. Besides this, the chaff prevents the suckers from taking root; keeps the rain from filling the fruit with dirt, and throws off the too great operation of the sun from the berries while ripening. In our next number, we will enter more largely into this subject.—*Southern Agriculturist.*

[From the Southern Agriculturist.]

LARGE CORN.

Through the politeness of James Nicholson, Esq. of this city, we have been presented with an unusually large ear of corn, from the plantation of Kinsey Burden, Esq. of John's Island. It contains sixteen rows, and number eleven hundred full grains. The seed is the common flint, and was selected from a common stock growing among the crop-corn. This present ear, is, we believe,

the third or fourth generation in descent; and is one from many others of the same size. We have not shelled and measured it, but have not the least doubt, that it is good for something over a half pint.

Mr Burden has already distinguished himself for having brought the fine cottons to their greatest perfection by a selection of seeds. He has extended the same experiments to corn, and bids fair from the exhibition now before us, of achieving the same results. For ourselves, we can see no reason, why the same rule should not apply to corn, which applies to every other plant and to the human family. To the preservation of them in health, vigor and fecundity, change of climate, soil, and treatment are absolutely essential. If our planters would pay more attention to the selection of the various kinds of seeds used than they have hitherto done, we have not the least doubt, that the most cheering consequences would follow.

CHOOSING SHEEP FOR BREEDING.—One of the two species of sheep, the long and the short woolled, having been chosen, as most appropriate to the situation, and wool being made an object, it is most advantageous to select such flocks as are pure as possible of the species to which they belong, and not a mixture of the short and long woolled breeds, which must generally produce an inferior fleece, disadvantageous to the manufacturer. Length of staple in the long, and fineness, elasticity and closeness in the short woolled fleece, will be the best guides in this case.

Whether the wool be long or short, the carcass of the animal ought to be amply and regularly covered; it is a great defect when the belly is bare, and a still greater when the wool is thin and open along the ridge of the back, admitting rain and moisture to a most susceptible part, indeed to descend upon all parts of the body.

It is a piece of good old advice, to buy your rams a little before shearing time, if possible; and a very necessary modern addition, to take the opportunity of purchasing at the farmer's house, while you see the animal in *puris naturalibus*, and before he has been decked out and trimmed for show by the sheep barber. A thick fleece, covering all parts with as much equality as possible, containing plenty of *yolk*, or retained or inspissated perspiration, is the object. If ewes, equally well bred, can be procured, the shepherd anticipates and reaps an immediate benefit; if not, he must patiently await improvement of his wool, through the medium of the superior blood of his rams.

At shearing time, examine the bottoms of the fleece, or the lower extremity of the filaments of wool; if it be *stichy-haired*, of mixed quality, or if the sheep have a coarse breech, or be not well covered, it must be rejected, as improper for a

breeding stock, where it would perpetuate its defects. The quantity of yolk or grease is a good proof of the thickness of the fleece, since, by the closeness and thickness of the wool, the grease or perspirable matter of the animal is retained; hence fine, closed, curled wool has ever the greatest quantity of yolk.—*Bath Memoirs.*

THE CULTURE OF HOPS.—Iron rods have been lately substituted for hop-poles, in several parts of England, with very remarkable success. Under this system, the rapid growth of the vine, particularly after the passing of the thunder clouds, is quite surprising; the plants are perfectly free from mould, rust, the fly, &c.; the crop proves weighty and abundant, exhibits a beautiful color, and ripens much earlier than when trailed in the usual way. The rods should be pointed, in order more effectually to attract the electric fluid, to the agency of which in producing vegetation these results are attributable. From the superior durability of the material the improvement is considered to be also a saving. In England, where whole counties are devoted to the culture of the hop, this discovery is of immense importance; and is not without its value here.

RICE FAMILY BREAD.—The following letter from a lady, will teach the housewives of our country how to add to the comforts of home:—“I have been trying experiments with rice flour, and I have produced a bread that is unrivalled, far superior to the receipts you have. Since I got it perfect, I have sent some samples to every one I could think of. It is the best bread I ever tasted, and I don't think it more expensive than wheat bread, for the rice flour goes so much farther than the same weight of flour. I make it thus: one quart of rice flour made into a stiff pap by wetting it with warm water, not so hot as to make it lump; when well wet, add boiling water, as much as two or three quarts; stir it continually until it boils; then add one pint of milk; when cool enough to avoid scalding the yeast, add half a pint of good yeast, and as much wheat flour as will make it of a proper consistency for bread; put it to raise; when sufficiently risen, it will be necessary to add a little more wheat flour. If baked too soft, the loaves will be hollow. The first I baked were mere shells. If you can abbreviate the receipt for use, you may; but if you do not give all this information, people will not succeed in making it good. The same mixture, rather thinner, baked in muffin rings, makes the best muffins I ever tasted. I forgot to say the bread must stand half an hour or more in a warm place, after it is put in the baking pans, and it will rise again almost as much as it did at first.”

EXTRACTS FROM AN ADDRESS

Before the Essex Agricultural Society, at Danvers, at their Annual Cattle Show. September 30, 1835.
By DANIEL P. KING.

The business of the farmer requires his constant care and inspection; he must not intrust it to another; if he expects his work to be well done, he must do it himself, or at least see it done. How many farmers have been misled by the notion that their respectability and consequence in society is commensurate with the number of their acres, forgetting that it is the *condition*, and not the *size* of their farms, which gives them a character.—This desire to be considered the owner of a wide domain has been a fatal snare to many who might have enjoyed their homestead in peace and plenty;—it has involved them in pecuniary embarrassments, which have driven them sorrowing from the very fields, perhaps, which their ancestors reclaimed from the wilderness, to seek for themselves and their little ones a habitation amongst strangers, or in some distant, solitary wild, where the voice of a stranger would be welcomed as the voice of a friend. When it is matter of choice, the best sized farm is that which the owner has skill, capital and energy to manage to the best advantage. A mistake similar to this, and of the same disastrous consequences, has led some farmers into extravagance in the size of their houses, extravagance in furnishing them, and extravagance in their style of living. How many kind hearted, pains-taking, industrious farmers, forgetting that “it is the eyes of others, and not our own, which ruin us,” have been lured by the false glitter to rivet on the chains which have afterwards galled them to the quick! No man, except a landlord, wants a larger house than will accommodate his family, and occasionally his friends. Let every farmer, then, who is about to build, first sit down and count the cost, then let him consider at how much less expense a house of moderate size is furnished and kept in repair, and how much less labor is required in sweeping and scouring, (it will be prudent to make the calculation, although it may not be prudent to intermeddle with the operation;) and then let him seriously reflect how small a house will hold his tried, valued, and true friends. A man of ample fortune will consult his taste—he may think that a large mansion, costly furniture, and a corresponding style of magnificence, will increase his happiness—let him try it, for bank bills are as worthless as the scathed and withered leaves that are put into circulation by an autumn gale, and specie as valueless as the pebbles washed by the waves of the sea, if they do not contribute to the happiness of their possessor, or if they are not in his hands the means of conferring happiness on others. But before

the man of wealth indulges in such profusion, if he is a philanthropist, he will remember that his example may be followed by those who cannot so well bear the expense; if he is a father, he will remember that his children will hardly be content with any situation or manner of living inferior to those to which they have been used under the paternal roof.

If I had not already trespassed too far on your patience, I would speak of the importance of domestic manufactures, as affording the only ready and constant market for the surplus productions of your farms, and as indispensable to the real independence of the country — I would say something of the cultivation of mulberry trees and the rearing of silk-worms, as affording a profitable and pleasant employment at home for those members of your family whose health and whose virtue might be too much exposed abroad. There are many other topics of domestic economy of great interest, but most of them have been learnedly, or what is better, practically, treated by gentlemen who have addressed you on former occasions. But there is one subject which is becoming so important, and the evils of which are so general and serious, that you will be disposed to allow it a moment's consideration. I mean the difficulty of obtaining experienced, able and faithful help. The complaint has been growing louder and more frequent, and a remedy is most desirable. But a few years since, for the reasonable compensation and the kind treatment they always deserve, we could easily find diligent and faithful young men and young women who were willing to afford us their assistance — and a mutual benefit was received and conferred, and readily acknowledged — it was an exchange of good offices; while they cheerfully gave us their assistance and attention in the labors of the farm and of the house, they were learning the principles of good husbandry and good housewifery — they were preparing themselves for that station in life to which every young man and young woman should be looking forward, to the relation of husbands and wives, to the situation of masters and mistresses of families of their own. A well managed farm and a well regulated household are almost the only schools where this preparatory education can be acquired by the young; they must learn to obey before they can be fit to command; they must learn the lessons of good management before they can practise them. And let them be assured that there is nothing dishonorable or degrading in attending this school, or in learning these lessons, for there is no station or occupation which is not reputable when honorably followed, and they, and they only, are useful and worthy members of society who are engaged in some useful employment. Captivating as the charms of beauty may

be, and fascinating as are some of the polite accomplishments, let no young woman rely so much on these means of obtaining admiration and securing affection, as on the ability to make herself useful; for although a lover may be blind, a husband has eyes — although music, and painting, and dancing, and embroidery, may be very pleasant amusements, and afford gratification for a leisure hour, there are other hours besides those of d. d. liance and revelry, and other senses besides those of seeing and hearing — senses, too, which have more imperious demands; and there is danger that the wife or the mother who is not prepared to answer these constant demands, beautiful and elegantly accomplished though she may be, will not long appear graceful or lovely in the eyes of her husband. Some circumstances of fortune or station, or delicacy of health, may make it unnecessary or improper that a woman should perform active labor with her own hands, but there is no rank or station in which a lady can be placed where it is not desirable that she should know how the affairs of her household ought to be managed. I know that I give but cold and feeble utterance to the feelings of this Society in bidding a welcome, a cordial welcome, to that portion of the fairer and gentler sex who have honored this farmer's holiday with their presence. Without their encouraging smiles and cheerful assistance, even farming would be dull business. I cannot offer for their consideration a better sentiment than that contained in the words of a learned, elegant, and distinguished foreign lady, who says, "the only celebrity that can increase a woman's happiness, is that which results from the esteem excited by her domestic virtues" — and I will add, there is no praise, no applause, no glory in the wide world more worthy a woman's ambition than the fame of a well regulated household.

But pleasant, healthful and indispensable as the labors of the field and of the kitchen and the dairy may be, and excellent as is the course of discipline both for the body and the mind, there is danger that too many young men and women will prefer what they consider a more fashionable employment and a more elegant education. And you, as a Society, perhaps cannot do much to expose the mistake or to remedy the evil. It has however, occurred to me that it would be no perversion of your funds if you were to offer suitable premiums to such faithful, diligent, temperate and skilful man or woman as had remained for one or more years in the employment of any member of the Society; besides, as an additional encouragement and reward for their faithfulness, they might receive the Society's certificate, accompanied by some useful treatise on rural economy or domestic duties, such as Fessenden's *Complete Farmer, for the male*, and Mrs Child's

Frugal Housewife, for the females, so that the very means of rewarding, should be an encouragement and guide to greater excellence.

But if, as members of this society, you can do but little to remedy this evil abroad, as members of a more limited society you can do much to remedy it at home. Fathers and mothers, you stand at the fountain; with the lightest trace of your finger on the yielding soil, you can give a direction to the infant stream. You can send it gliding down through verdant fields and flowery lawns, imparting new fertility and beauty, and anon contributing its strength to propel the complicated machinery of industry: or you can send it dashing, foaming over precipices, to join with other impetuous, headlong streams, carrying devastation in their course: or you can suffer it to roll its sluggish way into some stagnant pool, affording a refuge for loathsome reptiles, and poisoning the atmosphere with its pestilential vapors. In infancy and at home, the deepest and most lasting impressions are made; your children may have able and faithful instructors, but there are many lessons of practical wisdom which are not taught in the schools. The mind of your child is constantly busy—he will be learning a lesson of you when you least think of it. To your child your remark is wisdom; your observation, experience; your opinion, sound doctrine; and your word, a law; your child is learning a lesson from every look and action—but most of all, your example is educating your child. It is a book constantly open before him, and which he is constantly studying. Be careful, anxious father, fond mother, that you insert no page which hereafter you may wish to tear, no line you may wish to blot—be careful that you admit into that much read volume no sentiment which you are unwilling your child should transcribe on the fair tablet within his own innocent bosom.

Fear not that I am about at this late hour to inflict on you a lecture on general education.—Schools, academies and colleges have been founded for the education of the mind and the heart; to these we must leave them; but what has been done to encourage the education of the hand?—The heart and the mind should indeed be enlightened, pure and undefiled, but the hand must be busy and skilful. The great secret of happiness consists in never suffering the energies to stagnate. Fortunately in the farmer's business there is no want of constant employment; if you can accustom your children to patient and cheerful labor, you have secured for them the means of happiness and independence. In other stations of life there may be unfortunates

“Stretched on the rick of a too easy chair,
Who by their everlasting yawn confess
The pains and penalties of idleness!”—

but this mortal sin should never invade a farmer's dwelling. In training your children to a willing industry, do not overtask their strength—let them feel that they can be useful, and that their assistance is valued—There are various employments in the house, the garden and the field that are adapted to their tender years; never let their labor be such in kind or amount as shall make it disgusting, and if possible make them derive from their labor some compensation in money, or relaxation, or indulgence; never withhold the merited praise or reward. Accustom them never to expect another to do for them that which they can as well do for themselves, but to rely upon their own strength, and to trust their own energies. Whatever may be their prospects in life, teach them to depend on their own resources. Help them to cultivate an affectionate, accommodating disposition, moderation in their expectations and moderation in their pleasures. Teach them to reverence God and to love work—“neither to despise labor nor husbandry, which the Most High has appointed.” “Teach them to bear the yoke in their youth, and to do with all diligence whatever their hands find to do”; so shall you deserve their assistance in the management of your house and your farms; so shall you secure for them that competence and happiness of which the mischances of this world cannot deprive them. And when you shall have performed all life's duties and enjoyed all life's pleasures, when your earthly tabernacle shall fall into ruins, when your wearied frames shall find quiet repose beneath the soil you have faithfully cultivated, and when your spirits, like shocks of corn fully ripe, shall be gathered into store houses not made with hands, eternal in the heavens—your grateful children shall arise and bless your memory; they shall be living monuments which shall bear record that you laid for them, in early habits of patient, cheerful and contented industry, the foundation for a manly, virtuous and honorable independence.

TOBACCO IN RUSSIA.—The Agricultural Society of Moscow has awarded gold and silver medals, as premiums of encouragement for the culture of American Tobacco, which has perfectly succeeded in Russia.

MITES AND WEEVILS.—The following method is practised in Germany for granaries infested by mites and weevils. Let the walls and rafters above and below of such granaries be covered completely with quick lime, slackened in water, in which trefoil, wormwood and hyssop have been boiled. This composition should be applied as hot as possible.

PLOWING IN A GREEN CROP.

As winter evenings seem to afford a suitable opportunity for intellectual improvement, and considering that the pages of a periodical of this kind are dependent very much on correspondents for matters of information, and that it is the part of every subscriber to contribute his mite to the improvement and information of the readers of an agricultural work of this nature, I have ventured to pen a few of my thoughts.

The farmers of almost every section of country differ materially in their modes of farming, and opinion respecting the most profitable manner of converting the produce of their farms into money. Their difference of opinion is certainly allowable and natural, when we take into consideration the difference of soils, the distance from markets, the difficulty in most neighborhoods of obtaining proper help, &c. all of which the farmer has to accommodate himself to in the best manner he can. The business of a farmer is in my opinion an independent, an honorable, and, when properly pursued, a profitable one; and no doubt, so long as our country continues in prosperity, the increasing demand for produce will insure to the farmer a handsome remuneration for the products of his soil.

Ploughing in of green crops, as practised in the State of New York, is so economical a mode of enriching the soil, that I have often marvelled it is not practised to a much greater extent in other places. Allow me to recommend the spreading of a coat of lime previous to ploughing in.

If the slovenly farmer, who allows his weeds to grow up unmolested and cover his fields, would, instead of this, plough them under, after a few repetitions of this, he would be surprised at the increased fertility of the soil, and save the labor of carting manure from a distance.

With respect to the best crops for turning under, there are various opinions; rye and red clover are, perhaps, as much in use as any other, though some plough in oats, millet, turnips, &c. In dry situations this practice succeeds best, as by the ground remaining exposed to wet, the crop turned under would not be so likely to rot.

With regard to turnips for ploughing in, I must acknowledge myself an unbeliever; I have heard of its being done to profit by others, but have seen it tried in my own neighborhood without success. Perhaps, however, it is owing to some difference in cultivation or soil with which we are unacquainted. It would confer a favor on us Jersey-men, if some of your successful New York farmers would furnish us with their experience on the subject of ploughing under green crops for manure, and on other modes of economising that very expensive, yet indispensable material in the business of agriculture.—“Junius,” in the *New York Farmer*.

FODDER RACKS.

Do farmers fodder their cattle in the best way; that is, do they derive the greatest possible benefit from a given amount of hay, in the manner generally adopted by them in feeding it to their cattle and sheep? Hay by most farmers is thrown out into the yard, scattered about by forkfuls, and the cattle and sheep are left to scramble and fight for it, and get it in the best manner they may. If the yard is dry, or frozen hard, or covered with straw, or even snow, but little comparatively is lost; but if, as is very frequently the case, the yard is soft with mud and manure, it is evident much of the hay must be trodden down and totally lost, and even at the best, some will be so injured by being mixed with the dung that the cattle will not eat it. Perhaps the only complete remedy for this evil is to feed cattle exclusively in stalls, and where this is practicable, the farmer undoubtedly finds his account in the diminished quantity of food required, and the superior condition of his herds; still, but few are able to adopt this mode of feeding to any great extent, and the plan which approximates the nearest to this, and is of general and easy application, should be adopted. Experience has shown that much of this loss and inconvenience in the feeding of cattle may be avoided by the use of suitable racks, and these are not so difficult in preparation, or so expensive as some may at first imagine; indeed, it is believed that the hay annually saved to the farmer by their use, would pay the expense of a yearly construction. Racks should be so made and set, that cattle or sheep may eat from both sides at once, as they occupy much less space, and can be made at the same time more portable. To construct racks, let a tree of suitable size be split into two parts, so that when the split surface is smoothly hewn, the pieces will resemble thick heavy slabs of sixteen or eighteen inches in width. By the way, heavy slabs of the ordinary kind, which may be procured from almost every saw-mill, form very good substitutes for these split timbers, when they cannot be readily found. Near the edge of each side of these slabs let holes be bored, into which let rounds of wood be inserted; the rounds, if intended for cattle, may be four feet in length — if for sheep, two feet will be sufficient, and at such distances from each other as may be deemed advisable, always remembering that cattle should not be allowed to put their heads between the rounds, while sheep should be permitted to pass theirs at pleasure. The tops of the two rows of rounds should diverge from each other, so that while their distances at the bottom should not be more than ten or twelve inches, at the top it should be two and a half or three feet; and if a slight railing of board be fixed on the top of those racks intended for cattle, they will be so much the stronger and better; on the ones intended for sheep, no such security is ne-

cessary. Let logs in a bracing manner be put into the slabs, so as to raise them, if for cattle, two feet, if for sheep, one foot; let these feet rest on thin flat stones, so as not to sink into the earth, and the rack may be considered as completed. Now it is evident that when such racks are properly placed and filled with hay, both cattle and sheep can eat of it much more comfortably, and to far greater advantage, than if it was scattered over the earth, or mixed with the mud and water of the yard. If such racks were constructed of the proper length, say twelve or fifteen feet, they could be easily removed from place to place, as most convenient during the winter; and in the spring, when no longer necessary, by placing them under cover, as should always be done, they would last for years. Farmers should always bear in mind that no man loses by attention to the comfort, ease, and health of his cattle and sheep, and that all suitable efforts for this purpose are amply repaid in the end. It was the advice of the wisest of men, the poet, philosopher, and natural historian of the inspired writings, "Be thou diligent to know the state of thy flocks, and look well to thy herds,"—advice which, if proper in the mild climate of Palestine, becomes doubly appropriate in our latitude, and during the freezing winters of New York.—*Genesee Farmer*.

KENNEBEC FARMING.—From the Report of the Committee of the Kennebec County Agricultural Society on corn, wheat, rye, barley, oats, &c., it appears that Abraham Pray, Jr. to whom was awarded the first premium on corn, raised on one acre, on which he spread 56 loads of manure and ploughed it in, 108 bushels and 12 quarts. Rowland B. Howard who obtained the second premium on 2 acres of pasture land on which were put 20 loads of green manure and ploughed in, and 20 loads of hog, sheep and compost manure put into the hills, raised 162 bushels. Amasa Tinkham who obtained the third premium, on one acre of sandy loam into which he harrowed 12 loads of green manure and put 12 loads in the hills, raised 78 bushels corn, seven bushels pea beans and one load of pumpkins. There were several other competitors, who though not so successful as the above, fell but little short. The result of each effort afforded a strong demonstration of the advantage of the farmer's proportioning his planting ground to his stock of manure. If Mr Tinkham had spread his 24 loads of manure on two acres, which we believe would not have been a less liberal manuring than is very common with the farmers in Maine, he would not have been more unfortunate than common to have obtained no more than 60 bushels of corn, with nearly twice the expense of labor.

Leavit Lothrop 33½ bushels wheat on an acre;

Mr Hankerson 33½ bushels. Moses H. Metcalf raised 24 bushels rye on one acre. Joshua Wing on an acre and 149 rods, raised 70 bushels barley; and Bradford Sawtelle 49½ bushels on one acre. Joshua Wing on one acre 90 rods, raised 62½ bushels of peas and oats. Abraham Pray, Jr. raised 58½ bushels of good oats on one acre.

Considering that the last season was hardly a favorable one for any kind of crops in Maine, the above results are highly creditable to the agricultural community in the county of Kennebec. If the same spirit of agricultural ambition and enterprise, which pervades that flourishing county could be excited throughout the State, Maine would not long be less distinguished for her agricultural prosperity and importance, than she already is for the richness of her forests, and her natural commercial advantages and facilities for manufactures.

PRUNING APPLE TREES.—It is a common practise to neglect, almost totally, apple orchards after they have been planted; and in consequence of this neglect, the growth becomes crooked and irregular—branches incline upon the ground, and become so numerous and dense as almost completely to shut out the sun and air,—they become stunted, and often become covered with moss, and the fruit small and of inferior quality.

Moderate and judicious pruning would contribute essentially to prevent this evil, and even to recover trees which have not too far advanced in this unthrifty state; but where they have long existed without care, and have grown old and become diseased, it is cheapest to remove them at once, and plant young and vigorous ones in their places. Doctoring diseased old trees is never to be recommended, except they are of some favorite, or choice variety,

It is not advisable to prune very freely, but to commence before the trees become very large, and by a frequent and moderate trimming, prevent the growth of a thick and crowded top. The operation should be so performed that the straightest and most thrifty branches may remain; and their distance asunder be such as freely to admit light and air.

In pruning, branches should be cut off as closely as possible, provided it does not occasion too broad a wound. The place is then sooner covered with a new growth of wood. In general, wounds more than an inch in diameter, should be protected from air and moisture. If not, they become dry and crack, and let in the rain and rot, or admit insects. Tar, mixed while heated with a quantity of whiting or pounded chalk sufficient to prevent its running, is an excellent application. Or nearly the same purpose is effec-

ted if brick dust, or even fine sand, be substituted for whitening.

Pruning apple trees may be advantageously performed any time during winter.—*Genesee Farmer.*

ECONOMY IN FUEL.—There is a prodigious waste of coal, occasioned by the width of the opening in the grates, by which a large portion of the heat escapes up the chimney. The best remedy is a register so contrived as to diminish the draft after the fire is ignited. A simple bar of iron will answer the purpose of diminishing the aperture, and any one who will take the trouble of trying the experiment, will be astonished at the additional heat thrown into the room by one of extraordinary thickness. A bar of iron that will cost twenty-five cents, will produce twenty per cent more heat.—*Boston Traveller.*

From the Georgia Telegraph.

COTTON SEED OIL.—A Gentleman of Upson county whose two sons have there a spinning Factory of six or eight hundred spindles, is now constructing in the same neighborhood, under water power, a set of machinery for cleaning and hulling Cotton Seed, and for expressing the oil, which for lamps has been found at the Petersburg Va. Factory, to be superior in more than one respect, to most of the Sperm oil. It burns with a clear brilliant light without odor, and is less affected by cold weather than the oils generally used. It is said to have been tested in New York as a paint oil and found good, and the *Cold Pressed* pronounced by a French gentleman to be equal to Olive oil for salads, &c.

This manufacture is quite a desideratum to our Planters as well as the oil maker, as from each bale of cotton come about thirty bushels of seed, and every three bushels of seed yield at least two gallons of oil. Rating the seed at twelve and a half cents per bushel, each bale will produce to the grower \$3, 75 more than at present. The oil expressed will be twenty gallons, worth at least 87½ cents or one dollar per gallon, supposing the Sperm oil to cause a reduction in its price.

C.

TO PREVENT BRASS VESSELS FROM CONTRACTING VERDIGRIS AFTER BEING USED.—Instead of wiping them dry it has been found, that by constantly immersing them in water, they are kept perfectly innocuous, and will remain for years, fully as clean and nearly as bright as when they first came out of the hands of the workmen.

The daily increase of population in the United States is about one thousand.

MICROSCOPIC VIEW OF MILK.—If you submit milk to examination by the microscope, you will observe that it consists of a number of globular particles which float in a serous fluid.—Raspail says they appear strongly colored, and black on the edges, on account of their minuteness. They are not more than half the size of the globules of human blood; their diameters, therefore, will be about one ten thousandth of an inch. They are composed of a fatty matter—butter—and a coagulable substance of the nature of albumen, but which slightly differs, and, in fact, is caseum, constituting the basis of cheese. These globules being specifically lighter than the liquor in which they are separated, easily separate by standing, and form cream. We cannot help being struck with the remarkable analogy which exists between milk and an emulsion (as that made with almonds.) Both have a whitish appearance and a sweetish taste; both, on an examination by the microscope, are found to contain an immense number of oily globules, held in suspension by an albuminous matter and sugar, and both are intended for the nourishment of young living beings.—*Percival's Lectures.*

A BIG POT.—A potter, in Austria, by the name of Ignatius Carlier, finding it difficult to procure employment, though not from any want of skill in his art, resolved to do something which should bring him into public notice. He resolved, therefore, to make a pot which should astonish all beholders; and after laboring three months, he produced a vessel capable of containing 4000 measures, or a quantity of soup sufficient for 12,000 men. The sides were ornamented with garlands, the imperial eagle, and a representation of the temptation of Adam and Eve. This stupendous pot being exhibited, procured him the requisite notoriety, and orders from all quarters poured in upon him in such profusion that he is now in a fair way to make his fortune.

IMPORTANT TO HOP GROWERS.—It has been found that the substitution of iron rods in place of hop-poles exerts a most favorable effect upon the growth and amount of crop. The plants are not troubled with mould, rust or the fly; they grow much more weighty and luxuriant and ripen much quicker. This effect is supposed to be owing to the electric fluid attracted by the iron conductors.

PORK.—The price of Pork will range this season in the State of Ohio generally, as far as we are able to learn, from \$4, \$4 50, to \$5 per cwt.—*Ohio Farmer.*

BRIGHTON MARKET,—MONDAY, MARCH 7, 1836.

Reported for the Daily Advertiser & Patriot.

At Market 240 Beef Cattle, and 230 Sheep. . 60 Beef Cattle unsold, all of which are of the first and second quality.

Prices.—*Beef Cattle*—A large proportion of the Beef Cattle were purchased before they arrived at market by speculators, and were held at a considerable advance. Many of the butchers did not purchase their full supply, refusing to pay the prices demanded. We noticed a few yokes extra taken at 45s. A pair extra fine were sold on Tuesday by David Barnard to Nathaniel Martin at \$3 per 100 lbs. We quote first quality at 40s a 43s; second do. at 33s 9d a 37s 6; third do. 29s a 32s 6d.

Sheep—We notice sales at the following prices; 27s, 30s, 34s, 6d, 36.

Pigs—None at market.

GARDEN SEEDS AT \$1 PER BOX.

Small Boxes—Garden Seeds, containing a good assortment for a very small garden, for sale at \$1 per box.

Also—A very large assortment of Garden and Flower Seeds, raised in gardens connected with the Agricultural Warehouse, &c. now ready for sale and orders promptly executed. Jan. 27. GEO. C. BARRETT.

WANTED,

Vol. 1, N. E. Farmer, for which a high price will be given. Feb. 24. GEO. C. BARRETT.

FINE EARLY PEAS.

Earliest Dwarf Peas—the earliest variety of Peas, grown from 20 to 24 inches high—consequently require no sticks.

Early Washington Peas; a very productive early variety.

“ Charlton “ Early Golden Hoop, do.;

Bishop's Early Dwarf, do. ; very Dwarf and early.

Also—Dwarf Scymetar Peas—A new variety from Scotland; this Pea will be found a great acquisition for a very productive and delicious late sort.

Dwarf Blue Imperial Pea;

Large Dwarf Marrowfat, do. ; &c. &c.

All the above were raised expressly for the NEW ENGLAND SEED STORE, Nos. 51 & 52, North Market Street.

TEAZLE SEED.

Just received 50 lbs. prime Teazle Seed. The importance of this crop merits the attention of agriculturists.

Dec. 16. G. C. BARRETT.

25,000 WHITE MULBERRY TREES.

The Subscriber will engage, if applied for soon, a part or whole of the above number of White Mulberry Trees, very thrifty and in good order, to be delivered in the spring.

Feb 3. G. C. BARRETT.

Subscriptions and payments to the Silk Manual will be received by the following named

AGENTS.

New York—G. C. THORBURN, 11 John-street.

Albany—WM. THORBURN, 317 Market-street.

Philadelphia—D. & C. LANBETH, 85 Chesnut-street.

Baltimore—Publisher of American Farmer.

Cincinnati—S. C. PARKHURST, 23 Lower Market-street.

Flushing, N. Y.—WM. PRINCE & SONS, Prop. Lin. Bot. Gar.

Middlebury, Vt.—WIGHT CHAPMAN, Merchant.

West Bradford, Mass.—HALE & Co. Booksellers.

Taunton, Mass.—SAM'L O. DUNBAR, Bookseller.

Hartford—GOODWIN & Co. Booksellers.

Newburyport—FRENZER STEEDMAN, Bookseller.

Portsmouth, N. H.—JOHN W. FOSTER, Bookseller.

Woodstock, Vt.—J. A. PRATT.

Bangor, Me.—WM. MANN, Druggist.

Hartford, N. S.—E. BROWN, Esq.

St. Louis—GEO. HOLTON

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES, Russets and Baldwins.	barrel	1 50	2 25
BEANS, white,	bushel	1 75	2 00
BEEF, moss,	barrel	11 37	12 60
Cargo, No. 1,	“	9 25	10 00
prime,	“	7 37	7 62
BEEFWAX, (American)	pound	25	27
BUTTER store, No. 1	“	20	22
CHEESE, new milk,	“	8	9
FEATHERS, northern, geese,	“	46	50
southern, geese,	“	42	45
FLAX, American,	“	9	10
FISH, Cod,	quintal	2 87	3 00
FLOUR, Genesee, cash	barrel	8 25	8 50
Baltimore, Howard street,	“	7 75	7 75
Baltimore, wharf,	“	7 50	7 62
Alexandria,	“	7 50	7 62
GRAIN, Corn, northern yellow	bushel	92	95
southern flat yellow	“	85	87
white,	“	80	84
Rye, northern,	“	1 05	1 06
Barley,	“	90	1 00
Oats, northern, (prime)	“	70	75
HAY, best English, per ton of 2000 lbs		25 00	30 00
eastern screwed,	“	22 00	24 00
hard pressed,	“	24 00	25 00
HONEY,	gallon		
1st quality	pound	13	14
2d quality	“	10	12
LARD, Boston, 1st sort,	“	13	14
southern, 1st sort,	“	11	12
LEATHER, slaughter, sole,	“	19	20
do. upper,	“	12	14
dry hide, sole,	“	19	21
do. upper,	“	18	26
Philadelphia, sole,	“	27	29
Baltimore, sole,	“	25	27
LIME, best sort,	cask	1 20	1 25
PLASTER PARIS, per ton of 2200 lbs.		3 12	3 37
PORK, Mass. inspect. extra clear,	barrel	24 00	25 00
Navy, mess,	“		
bone, middlings, searce,	“		
SEEDS, Herd's Grass,	bushel		
Red Top,	“	75	90
Red Clover, northern,	pound	10	11
SILK COCOONS, (American)	bushel		
TALLOW, tried,	ewt.	8 50	9 00
Wool, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	“	55	65
do. 3-lths do.	“	55	58
do. 1-2 do.	“		50
do. 1-4 and common	“	40	45
Naive washed	“	38	60
Northern pulled, { Pulled superfine,	“	58	60
{ 1st Lambs,	“	50	53
{ 2d do.	“	40	41
{ 3d do.	“	30	35
{ 1st Spinning,	“	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

	RETAIL PRICES.		
HAMS, northern,	pound	12	14
southern, and western,	“	11	12
PORK, whole hogs,	“	9	10
POULTRY,	“	11	15
BUTTER, (tub)	“	18	20
lamp	“	22	25
EGGS,	dozen	23	33
POTATOES,	bushel	30	50
CIDER,	barrel	1 75	2 00

FESSENDEN'S SILK MANUAL

AND PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. I.

BOSTON, APRIL, 1836.

NO. 12.

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GEORGE C. BARRETT,

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T. G. FESSENDEN, EDITOR.

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BOSTON, APRIL, 1836.

(For the Silk Manual)

Mr FESSENDEN—I avail myself of the medium of your Journal, devoted to the dissemination of information relating to the cultivation of the Mulberry, and the raising and manufacturing of silk in the United States, to communicate such intelligence as the results of others, and my own experience may from time to time furnish.

The whole subject of the growth and manufacture of silk in this country, is receiving the attention of intelligent and discerning individuals, in public and in private, which its importance demands. And the liberal provisions for its encouragement, by the legislatures of most of the New England States, will give to this business in its incipient stages, an impetus which will carry it onward, till it becomes one of the great sources of individual and national prosperity.

The silk business will naturally divide itself into three great departments: first, the cultivation of the Mulberry and raising the Cocoons. Second, the production of raw silk and threads in the first degrees of manufacture, as singles, organzine, tram, &c. Third, the various productions of the loom, from the simplest trimming, to the most perfect and elegant fabric.

These departments may be divided or combined as the interest or convenience of those engaged in them may render expedient.

Connected with the first department, I have furnished the following estimates of the number of pounds of leaves consumed by 200,000 worms, reared from five ounces of eggs, each day through their five successive changes. The experiments from which these estimates are taken, were made

in Italy in the years 1813 and 1814, and the standard weight of that country changed to the standard weight of the United States.

<i>First Age.</i>	1813	<i>Pounds of Leaves.</i>
1st day	May 18	4
2d "	" 19	7
3d "	" 20	14
4th "	" 21	8
5th "	" 22	2
		—35
<i>Second Age.</i>		
6th day	" 23	21
7th "	" 24	35
8th "	" 25	38½
9th "	" 26	10½
		—105
<i>Third Age.</i>		
10th day	" 27	35
11th "	" 28	105
12th "	" 29	114
13th "	" 30	61
14th "	" 31	35
15th "	June 1	00
		—350
<i>Fourth Age.</i>		
16th day	" 2	113½
17th "	" 3	192½
18th "	" 4	262½
19th "	" 5	297½
20th "	" 6	149
21st "	" 7	35
22d "	" 8	00
		—1050
<i>Fifth Age.</i>		
23d day	" 9	210
24th "	" 10	315
25th "	" 11	490
26th "	" 12	630
27th "	" 13	945
28th "	" 14	1137½
29th "	" 15	1050
30th "	" 16	770
31st "	" 17	577½
32d "	" 18	280
		—6405
First age		35
Second "		105
Third "		350
Fourth "		1050
Fifth "		6405
Consumed		7945
Unconsumed		831
Lost		612
		—3388

First Age.	1814	Pounds of Leaves.
1st day	May 23	2½
2d "	" 24	4
3d "	" 25	5½
4th "	" 26	10½
5th "	" 27	9
6th "	" 28	4½
		—36
Second Age.		
7th day	" 29	9½
8th "	" 30	17
9th "	" 31	27
10th "	June 1	26
11th "	" 2	12½
12th "	" 3	2
		—94
Third Age.		
13th day	" 4	24½
14th "	" 5	52½
15th "	" 6	70
16th "	" 7	105
17th "	" 8	87½
18th "	" 9	35
19th "	" 10	3½
		—378
Fourth Age.		
20th day	" 11	87½
21st "	" 12	149
22d "	" 13	210
23d "	" 14	227½
24th "	" 15	280
25th "	" 16	122½
26th "	" 17	8½
		—1085
Fifth Age.		
27th day	" 18	210
28th "	" 19	315
29th "	" 20	420
30th "	" 21	542½
31st "	" 22	630
32d "	" 23	790
33d "	" 24	960
34th "	" 25	1137½
35th "	" 26	875
36th "	" 27	490
37th "	" 28	315
		—6685
First age		36
Second "		94
Third "		378
Fourth "		1085
Fifth "		6685
Consumed		8278
Unconsumed		700
Lost		507
		9485

The experiment of 1814 was made during a remarkably cool and damp season; which accounts for the protracted length of the several ages, and of the want of vigor in the insects.

According to results which have actually been made, the average produce of 200,000 worms, estimating 296 cocoons to a pound, will be 675 pounds of cocoons, and will yield 75 pounds of raw silk; which, at five dollars per pound, will amount to 375 dollars, and including the bounty on 675 pounds of cocoons \$67,50; and the bounty on 75 pounds of raw silk, \$37,50, the whole

amount will be \$480, presenting a prospect of remuneration for agricultural labor, worthy the attention of every farmer and of profitable employment to every family in New England.

FRANKLIN.

THE CULTURE OF SILK.

We have obtained from Mr Bartlett, the copy of a letter from the Rev. Dr WOOD, of Boscawen, which he read at the lecture delivered by him, on the *Culture of Silk*, before the Lyceum on Tuesday last. Mr Bartlett introduced the letter with a brief notice of the life and services of Dr Wood, paying a high and just tribute of praise to that distinguished and venerable clergyman.

The letter contains interesting facts in relation to the culture of silk, and they have the advantage of coming from most unquestioned authority. We publish the letter entire.—*Portsmouth Journal of March 26.*

" BOSCAWEN, Dec. 7, 1835.

ICHABOD BARTLETT, Esq.

Dear Sir,—In answer to your inquiries, I observe—It is about thirtyfive years since I brought of the White Mulberry tree, from Connecticut, a sprout of one year's growth. About ten years after, I brought from Connecticut some eggs of the silk worm. The tree that I first brought is about thirtyfive or six years old, and I have made silk from the leaves of about twentyfive years. I have annually stripped the tree of all its leaves in the month of June, for those twentyfive years in succession. The tree is yet in a flourishing state. When I raised young trees from the seeds of my old tree, I gave them away; till within a few years since, I have saved a few, which are yet small. From my old tree, I have made silk—a large supply for my family's use, and have had an overplus of several dollars worth annually.

The last year, with some help from my young trees, the silk was valued at more than twenty dollars. This year I did not lay out so largely. Perhaps I had four thousand worms. The trees which I brought from Connecticut, I have preserved for about twenty odd years, and they are equally good now as when I first had them.

My object has not been to multiply the trees as I might have done, but to learn the nature of the business,—and I am satisfied that the cultivation of silk may be made useful and profitable in this country.

I am yours in the bonds of friendship.

SAMUEL WOOD."

Horses that are confined in a stable never have the staggers.—*Dr. Mason.*

(From the New England Farmer.)

SILK CULTURE.

MR FESSENDEN:—Having recently received from a valued corresponding member of the Massachusetts Horticultural Society at Paris, a pamphlet, containing a report of the Committee of Agriculture of the Society for the Encouragement of National Industry, on the subject of the management of silk worms, embracing various important facts, as exhibited in the result of a course of experiments made by *M. C. Beauvais*, in his extensive establishment near Paris, I have thought that a translation of this report would be interesting to those who are engaged in this particular pursuit; in fact, so extensive are the preparations now making in various parts of our country to pursue this branch of industry, that it is important we should closely observe whatever is taking place abroad in relation to it, which purports to be new.

The valuable services rendered to the community by the exertions of those meritorious individuals who have acted as pioneers in the introduction of the cultivation of silk into our country, and whose names are familiar to us all, cannot be too highly appreciated; with their continued aid we need not fear but that the ingenuity of our countrymen will arrive at the true process to be pursued under our own climate, and which the venerable and learned *M. du Ponceau* has denominated the *American System*; but it cannot be denied we are as yet, practically, in the infancy of this pursuit, and it is important that we should be made acquainted with the latest views and opinions of distinguished men of silk growing countries on the subject; we want to know the details of important experiments; as well those which eventuate in failure, as success; in fact, we want the whole subject before us, and when it is recollected that this report is from the pen of the distinguished chevalier *Soulange Bodin*, founder of the Royal Horticultural Institute of Fromont, and one of the most eminent patrons of every branch of rural economy in Europe at the present day, it will not fail to attract the degree of attention which it deserves.

The propositions presented by the conclusions arrived at by *M. Beauvais*, under his particular process of management, are,

That the climate of the north of France is equally propitious to the cultivation of the silk worm as that of the south.

An augmentation of the product of an ounce of seed from 50 to 55 pounds of cocoons (the medium product in the south of France) to 137 pounds, the result of his last year's process.

A great improvement in the quality of the silk, and producing a much higher marketable price, and these flattering results are attributed very much to a new method of ventilating the apart-

ments, and thereby sustaining an equal temperature and a pure air, adapted to this purpose by *M. d'Arct*, and considered an improvement on that of the celebrated *Count Dandolo*.

An expectation of second annual crops, about to be attempted, for the success of which reliance is placed on the *Morus Multicaulis*.

But, as the report very frankly states, whatever confidence this remarkable experiment merits, or has already obtained, it must be repeated by different persons, in different places, and under different circumstances, to give it full weight and consideration with the community at large.

With great respect,

your obedient servant,

ELIJAH VOSE,

Dorchester, April 9, 1836.

REPORT

Made to the Society for the Encouragement of National Industry, by *M. SOULANGE BODIN*, on behalf of the Committee of Agriculture, on a mode of managing Silk Worms pursued by *M. Camille Beauvais*, in the domain of *Bergeries de Senart*, near *Montgeron*, department of *Seine-et-Marne*.

You have referred, gentlemen, to your committee of Agriculture, the examination of a letter which was addressed to you the 20th of June last, by *M. Camille Beauvais*. It brings before you one of the most important questions of agricultural economy which is agitated at the present day.

In fact, among the thousand particular objects of industry which your institution aids and encourages; a certain number attain gradually, each year, degrees of perfection which you hasten to prove, to reward, and to render profitable to all; and there can only be seen in these successive ameliorations, the happy symptoms and the anticipated results of that great phenomenon which characterises modern society, *progression*. Every thing advances under the same secret impulse, that of the good of the individual, towards the same apparent end, that of the general good; and in this universal movement governed by a high philanthropy, each one receives quietly in his turn the reward of his own efforts, under the common banner of a well regulated emulation, which has neither within itself, nor does it give rise to any germ of discord or dissention.

But it is not so when a question arises, embracing one of those bold, exclusive, innovating ideas, representing an entire system, which at times bursts forth from ardent minds, whose natural enthusiasm is supported by profound conviction, and which astonishes the multitude, and tends to displace some old order of things. These new and arbitrary ideas, must of consequence contend

with inveterate habits, call in question judgment anciently acquired, and raise up against themselves prejudices supported by the sanction of time; a conflict of opinion may then arise, during which human judgment will long combat with natural facts; and truth, on whichever side it may be found, will sometimes be slow to triumph.

It is, gentlemen, a spectacle of this kind that a skillful cultivator presents before you to-day; one who some years since, established himself near Paris, upon an indifferent and forbidding soil, and destitute of water. It might be said that this individual had only wished to gain a foothold upon our territory; that calculating in advance, but little from the profits of the plough, he sought only a small spot upon which he might realize the treasure which then existed only in his mind.

That treasure which M. Beauvais now exhibits before you, was at first, in fact, but an abstract idea, which he would have presented in this form: "To establish his own fortune, and the advancement of the public good, by a truly profitable method of management of the culture of silk in the centre and the north of France."

After long experiments, he believes, at last, to have caused to spring up from his arid soil, a new source of public and private wealth, and far from wishing to keep the enjoyment of it exclusively to himself, he invites us all to draw from the same source, which would be inexhaustible, in fact, if his zeal for the public good has not greatly led him astray.

M. Beauvais belongs to the South; it was easy for him to have fixed his establishment there, and to have conducted it upon the principles which were already familiar to him; he was aware of the efforts which had been vainly attempted in preceding ages to cultivate silk worms in the North. Everything attracted him to one side—everything repelled him from the other; but he said to himself: "Every branch of industry is on the advance. Why should that of the culture of silk remain forever nearly in the state it was when it passed from Italy into France? The sciences of natural philosophy and chemistry, whose recent discoveries may be considered as new, and of which it may invoke the aid, hardly then existed for the cultivator of the field. Must then this branch of industry remain irrevocably confined to its ancient cradle? Its losses, which have been sometimes so discouraging, ought they to be rather attributed to the constitution of the precious insect which is the basis of it, than to the impurity of the places in which it is confined, and to the variations of the atmosphere which press so heavily on a life at once so full and so short? They will not be attributed to the North, where at the present time the raising of silk worms is not pursued, when they so cruelly afflict that

happy climate of the South, reputed to be exclusively propitious to them. Wherever the mulberry grows and prospers, the worm which spins its leaf must be able to grow and prosper also. Let us not always despise the providential relations of beings! Why could I not create, under the shelter where that worm accomplishes his destiny, an isolated climate free from all local influence? I could even more easily guard it against the less pernicious effects of the North, than against the capricious temperatures of the South. But what do I say? it will no longer be a question of North or South; for I already see that it will be possible so to control and to combine in their narrow asylum fire and water, those two promoters of all organic action, and to imitate for them even those winds which sustain abroad the salubrity of the air, and dissipate afar the deleterious miasma."

I have put these words into the mouth of M. Beauvais, not, gentlemen, to add a value to his cause here, but because they in fact express what deep and intense thought has presided in his establishment, and recapitulate the principles upon which all his labors have been based. It has been at his own expense, at his own risk, that during nearly seven years, under the influence of his own convictions he has put these principles into practice, with constantly increasing results, without permitting himself to be discouraged by some mistakes which he has candidly acknowledged, and without being intimidated by the uneasiness of his friends, and by the doubts which he saw arise, like clouds, ready to obscure the brilliancy of his first successes, and perhaps to annihilate his most cherished hopes.

It would be superfluous to enter here into the general details of culture or of agricultural operations, which every friend of agriculture is admitted, is invited, to observe in the establishment of the Bergeries. They have been elsewhere described, and that is not the question before us; it is sufficient for me to say that 67,000 mulberry trees of the best sorts and the finest vegetation, among which are seen a great number of the *Morus multicaulis*, on which M. Beauvais principally founds his hopes for second annual crops, which he proposes to undertake, cover there, in nurseries and distinct plantations, 16 hectares and a half of ground, (about 41 acres.)

The establishment, so far as it has advanced, will be able to produce annually, with as little delay as the condition of its young trees will admit, 150 ounces of seed. During the five last years, the medium product of an ounce in the establishments of the South, has not exceeded 50 to 55 pounds of cocoons, that is to say about 10,000 worms only out of 42,000 which the ounce contains, have arrived at that last period, which connects a simple worm with the enjoyments of refined civilization; whilst

the first year's process of M. Beauvais, gave him 67 pounds of cocoons to the ounce of seed; he has been constantly in progress during the years 1830, 1831, 1832 and 1833; in 1834, he obtained 104 pounds. All these facts are generally known; the results of his last year's process was 137 pounds—in this, 8 ounces of seed were employed; it was made under a temperature of 18 to 20 deg. of heat by the thermometre of Reaumur; (73 to 77 deg. of Fahrenheit;) it occupied thirtyseven days, and consumed 16,830 pounds, (8,415 kilogr.) of leaves, not peeled, taken from mulberry trees, the one half of which were grafted the other wild; it produced 1,101 pounds and three quarters (551 kilogr.) of cocoons of the finest quality, large, firm and of an admirable whiteness. It does not appear that a similar result has been previously elsewhere obtained in any other large establishments, nevertheless, M. Beauvais is the first to inform us that one of his pupils, M. Henri Bourdon, recently from the polytechnic school, and a proprietor at Ris, has just finished an experimental process, of which the product was in the ratio of 170 pounds of cocoons to the ounce of seed.

[To be concluded.]

DETERIORATION OF SILK WORMS.—A superstitious notion formerly prevailed to a considerable extent that the eggs of the silk worm must be changed every two or three years to prevent the deterioration of the worm. This notion, like many others of the same class, is at war with reason and science. The supposition that good cocoons, after a few years, are no longer fit to produce good seed, is ridiculously absurd. The time has gone by when the idle and foolish theories of Buffon, Robertson, De Pauw and others, respecting the tendency of nature "to be little" and degenerate every thing in the new world, are received as truths. Facts also have settled the question that silk worms will not degenerate, except as a consequence of neglect, or the long propagation of those of diminutive size.—*Silk Culturist*.

SCARCITY OF HAY.—The Greenfield Mercury remarks:—"We regret to hear that a scarcity of hay is beginning to be severely felt in many of the towns in this county—particularly in the hill towns west of us. Many farmers have scarcely a lock of hay left, and are unable to procure it except at exorbitant prices. Meantime their stock is suffering extremely. A farmer in Heath, we understand, lost five cows last week from absolute starvation, and a farmer in another town upwards of twenty sheep from the same cause: the depth of the snow preventing their going into the woods to browse. We have heard of one or two instances where farmers have offered their cows at \$5, and sheep for their fleeces when sheared, and been

unable to dispose of them, even at that rate. We apprehend that this scarcity arises not so much from an absolute deficiency of hay in consequence of the light crop of last year, as from the withholding for a higher price, of those who cut their usual quantity, and who have tons of a surplus to dispose of. If the hay actually in possession were more equally distributed, we have no doubt there would be a sufficiency for all, enough at least to prevent much suffering."

The Northampton Courier says: "Hay is scarce beyond example. The 'hill towns' are suffering much, and the valley little better off. Hay is selling for twentyfive dollars, and it can hardly be had for love or money. We were told the other day, that if all the hay in the town of Goshen should be put before the cattle, it would not last them twentyfour hours. The mildness of the weather will soon enable sheep to *browse*, and in this way a great saving will be had in the shape of provender."

RAIL ROADS IN THE UNITED STATES.—It is estimated on good authority, that at this time, the rail roads in the United States, either actually under contract, or in progress of being surveyed, amount to more than three thousand miles. Each yard of the highest iron rails, fit for a rail road, weighs sixtytwo and half pounds. As there are 1760 yards in a mile, each mile of rail road with a double track, will require two hundred and thirtyeight tons of rails, besides chains, screw and bolts, amounting in the whole to at least 250 tons of iron per mile—250 multiplied by 3000, is seven hundred and fifty thousand tons of iron, that will shortly be used in the United States, in the construction of rail roads.

Such is the demand for rail road iron in England for the American market, that common bar iron, which one year ago, was worth only £6 10s. stg. in Wales is now worth £9 10s. at the Welsh works; as appears by the British Prices Current.

It is stated in the New York papers that at this time contracts have been actually made in England by American Houses, for four hundred thousand tons of rail road iron, to be shipped to this country.

£9 10s. sterling is about fortyfive dollars of our money; but rail road iron costs more than common bar iron, and is at this time worth at least \$50 per ton, at the works in Wales or Staffordshire. Four hundred thousand tons of iron at \$50 per ton, is *twenty millions of dollars*, that the people of the United States are bound to pay to the English by their present contracts for rail road iron. If all the projected rail roads of this country shall be laid down with British iron rail, we shall pay to the English nation within the next seven years, at least *fifty millions of dollars for rail road iron*.

And yet, we have in our mountains both iron ore and coal, of the best quality, and in quantities sufficient to yield iron for the whole world.—*Penn. Tel.*

A Broom Corn mania is getting up in this region, and the coming spring, from appearances, little else will be seen in meadows. Broom brush is unexampled in price, selling readily at fifteen cents, and ashes to put on broom corn land, sell now at twentyfive cents per bushel in this village. The produce of an acre of Broom corn was sold the other day in this town for \$130!—*ib.*

Sewing Silk is selling in Northampton at \$10½ per lb. It is becoming a scarce article, and already we feel the necessity of having our Northampton Silk Company in operation. It has been ascertained by a careful computation, that not less than \$15,000 worth of silk stuffs were sold in this town during the year 1835. One firm sold \$4000 worth. Only think of that! *Fifteen thousand dollars* sent out of this single town to purchase the one luxurious article of Silk! when if our farmers had had the business of silk growing in their eye five years since, this comfortable amount could have just as well been put in their own pockets. What one item of produce is there raised in the Northampton meadows which furnishes an income of \$15,000?—*Courier.*

The Beef Cattle in this region are thinning out fast. A number more superior animals from South street, left for Brighton on Monday. The Republican says, there are about eighty head remaining in Northampton, three hundred in Hatfield, one hundred and eighty in Deerfield, and sixty in Greenfield. In Northfield, Hadley, and Amherst about one hundred. The drovers from abroad have been through the neighboring towns, but the cattle are held higher by the feeders than they are willing to pay.—*ib.*

EARLY FRUGALITY.—In early childhood you lay the foundation of poverty or riches, in the habits you give your children. Teach them to save everything;—not for their *own* use, for that would make them selfish—but for *some* use.—Teach them to share everything with their playmates; but never allow them to destroy anything. I once visited a family where the most exact economy was observed; yet nothing was mean or uncomfortable. It is the character of true economy to be as comfortable with a little, as others are with much. In this family, when the father brought home a package, the older children would, of their own accord, put away the paper and twine

neatly, instead of throwing them in the fire, or tearing them to pieces. If the little ones wanted a piece of twine to spin a top there it was in readiness, and when they threw it upon the floor, the older children had no need to be told to put it again in its place.

Curing Hams.—A subscriber hands us the following receipt as a superior one for curing hams, which has until recently been held as a secret, and now for the first time published. Take 2 oz. saltpetre, and one large teaspoonful of pearlash to 16 lbs. of ham, add molasses in the proportion of one gallon to the hoghead. Make the salt pickle as strong as possible, dissolve all the above ingredients, put them in the pickle, and pour it on the hams. Let them remain in the pickle under weight, for six weeks, and smoke them during the cold weather. They will keep an indefinite period, and equal in flavor to any in the world.—*Huron Reflector.*

TO RESTORE TAINTED BEEF.—In the last fall I procured an acquaintance of mine in the country to put up a barrel of fat beef for my family's use during the winter. The barrel of beef was sent to me agreeable to contract; but before I had used one quarter part of it I observed it tainted, and so much so as to smell quite offensive. The beef being very fat and fine I was loth to throw it away. I made the following experiment: I procured a half bushel of charcoal, and after taking out the beef and throwing away the offensive pickle, I repacked it in the barrel, laying the pieces of charcoal between the pieces; and making a new pickle, and adding a little saltpetre, I covered the beef, and in about sixty days found it as sweet and good as it was when first put up.

SALT A MANURE FOR COTTON.—Alexander Jones, M. D., recommends, in the American Farmer, the use of salt as a manure to improve the staple of cotton. He says, if sea island cotton be planted for several years in succession in the interior of the country, it degenerates into the short staple cotton. In support of the benefit from salt, it is said that cotton in the vicinity of salt springs and licks is of a larger staple.

GOLD COINAGE.—The select committee in the House of Representatives have reported in favor of coining gold pieces of the value of one, two and three dollars.

IMPORTANT TO THE LADIES.—A letter from an American lady in England says, that during her stay of some months, she had not yet seen a lady with earrings! and this is the very centre of fashion—London!

FENCE POSTS.—An excellent method of rendering these durable in the ground, is published in the *American Eagle*. It consists, 1. In peeling the posts, and in sawing and splitting them if too large; 2. In sticking them up, under cover, at least one entire summer; and 3. In coating with hot tar, about 3 feet of the butt ends, which are to be inserted in the ground—after which they are ready for use. We have no doubt the advantages of this mode of preparation will more than remunerate for labor and expense. Our reasons for this belief are briefly as follows: The sap of all non-resinous trees, will ferment in the presence of heat and moisture, and cause the decay of the wood. To prevent this natural consequence, the first object should be, when a tree is felled, to expel the sap from the pores of the wood. This is done by peeling, splitting, sawing or hewing, and exposing the wood to the drying influence of the sun, or at least of the air. The process is facilitated too by immersing the wood in water for a time, which liquifies the sap, and favors its expulsion, and when the moisture has been expelled, the next object is to keep it out, by paint, tar or charring. In the mode recommended above, the moisture is expelled by the peeling, sawing and summer drying, and its return is prevented by the coating of tar. The retention of the bark upon the timber is particularly prejudicial, not only in preventing evaporation, but affording shelter to various species of the borer, which, under its cover, carry on its depredations upon the timber. We have seen pine logs nearly destroyed in a summer by worms, where the bark had been left on, while those which had been peeled remained uninjured. The best timber is obtained from trees which have stood a summer, or a year, after they have been girdled and peeled.—*Cultivator*.

LIQUID MANURE.—Liquid manure may be here [at Ghent] named, and very justly so, their *sum-nubonum*; as if applied when the corn is sprouting, or just before a rain, it has an effect which no other manure can have. It destroys insects, and throws a surprising degree of vigor into the crops. It is pumped [from the tanks under ground, into which it is conducted by drains from the stables, &c.] into a barrel-shaped water cart; and, when brought upon the land, the plug is taken out, and the liquid, flowing over a board something in the shape of a fan, as the cart proceeds, is dispersed on both sides, over a space, perhaps 4 or 5 feet. The cart has generally three wheels.—*Lon. Gar. Mag.*

BETTER THAN A GOLD MINE.—The Exchange in New Orleans will be built of Granite, obtained at the quarries in Quincy, near Boston. Beyond all mines of silver and gold is the Quincy quarry.

CHEMISTRY APPLIED TO AGRICULTURE.—It is stated that the celebrated chemist Lavoisier cultivated 240 acres of land in La Vendee on chemical principles, in order to set a good example to the farmers. His mode of culture was attended with so much success, that his crops amounted to a third more than those which were produced by the usual method; and in nine years his annual produce was doubled. Yet the generality of our yeomanry would as soon think of studying Hebrew, as the elementary principles of chemistry.—*Gibbon's Adv. of Sci.*

TOMATO.—It is said that the juice of the tomato vine contains a most superb innate green coloring, which is said to have been used as a dye, and may be made of all the various shades of green, from the dark to light pale green and when mixed with other colors, this green coloring is thought to have a stronger basis than any other vegetable.

A BAKED POTATO PUDDING.—Mix twelve ounces of potatoes boiled, skinned, and mashed, 1 oz. of cheese grated fine; add as much boiling water as is necessary to produce a due consistency, and bake it in an earthen pan.—*Yankee Farmer*.

LINSEED COUGH SYRUP.—Boil an ounce of linseed in a quart of water, till half wasted; then add six ounces of moist sugar two ounces of sugar candy, half an ounce of Spanish liquorice, and the juice of a large lemon. Let the whole slowly simmer together, till it becomes of a syrupy consistence; when cold put to it two table spoonsfull of the best old rum.

MAPLE SUGAR.—The maple sugar season is upon us now, and during the sunny days and freezing nights which we have towards the end of March and the beginning of April, the farmer and the "farmer's boys," may be seen in the maple lots with all their apparatus, buckets, spouts, kettles, &c. for manufacturing this valuable and delicious article. In time it will be found in the Boston market, vieing in richness and whiteness with the best loaf sugar.—*Claremont, N. H. Eagle*.

New York Cattle Market, April 4.—At market 600 Beef Cattle, 500 Sheep: demand for Beef fair and prices about the same as last week, nearly all taken at 7 1-2 to 12 1-2, average \$9 1-2 the 100 lbs. Sheep—in good demand, 300 sold at 3 1-2 to 5 1-2.—*Jour of Com.*

SEA WATER AS MANURE.—Several instances are recorded of the benefits of salt water. The potato crop has been very considerably increased by it. It should not be applied when the ground is dry, lest it kill young and tender plants and injure others.

NEW MODE OF REARING ASPARAGUS.

The asparagus seed should be sown from the middle of March to the last of April, in a rich spot, (not too much exposed to the mid-day sun,) one inch deep, and the seed one inch apart; after they come up, to be kept clear of grass and weeds during the summer, by hand weeding, to be dug up the next fall or spring—(I prefer the spring, as the roots do not grow during the winter, if set out in the fall, and are liable to be killed by a severe winter)—and set in beds prepared as follows: Dig out the size of the beds nine inches deep—cover the bottom three inches deep with rich marl, (which has been my practice,) though I believe that oyster shells half burned will be as good, as it is intended as a lasting heating manure to protect the roots in winter, and force the vegetable early in the spring: then put three inches deep of coarse stable manure, then three inches of rich earth. This brings the beds on a level with the surface of the earth. Next lay off the beds in rows eighteen by twelve inches apart, and put a single eye or spire in each spot where the lines intersect, and cover them three inches deep with rich earth. Plank the sides of the beds, as this prevents grass and other roots from running into the beds, and also keeps the outside roots from being exposed, by the sides of beds washing away. The beds should be kept clean by hand weeding, and all the earth and manure used in making them, should be perfectly free from grass roots and noxious weeds. In the fall of the year, after the seeds have matured, cut the tops off close to the beds, (being careful that not a single seed is left to vegetate on the beds,) as they have already as many roots as the space they occupy should contain, and if additional roots are suffered to form from year to year from the falling of the seed every fall, the beds will soon be so much clustered with roots that the vegetable must degenerate, at least in size and length, as the new roots form near, or on the surface. Some prevent this by burning, but I think the best way is to pick them off by hand, before the ball that contains the seed breaks. You then top dress the beds with coarse stable manure, let it lie on all winter, and in the following spring rake off the coarsest part, and fork in the remainder, being careful that the fork does not touch the roots. Pursue this course two falls, and early in the third spring, before the beds are forked up, put on two inches of light well rotted manure—fork it in with the stable manure, then put on from three to four inches deep of clean sand from the river shore, and you will cut in the month of April the best vegetable we have in Virginia. I would not give my beds for the balance of my garden. I think there is much in the kind of seed. I obtained mine from New York—they were marked "Giant Asparagus."

The cover of sand is important on several accounts; it being a great absorber of heat and moisture, so soon as the vegetable gets through the soil, it is hastily thrown through the sand to the surface in a bleached tender state, and the cutting from day to day is more uniformly of the same tender delicious vegetable. The sand also prevents grass from growing on the beds, which obviates the necessity of so much hand weeding during the season for cutting, by which the beds frequently become trampled, and the vegetable that is about to come through the surface mashed down, which not only destroys the spires that are so trampled on by the gardener in the process of hand weeding, but, I think, injures the roots.—The sand should be laid in the alleys between the beds, in the fall, when the beds are about to receive the top-dressing of stable litter to keep them warm through the winter; and when the sand is about to be replaced in the spring, it should be passed through a sieve of such size as will not let the balls (that contain the seed) pass through. This will be another means of preventing the seed from vegetating on the beds. There is a practice very prevalent with gardeners to plant lettuce, radishes, and other early vegetables on the beds; this should never be done, and particularly with radishes, as they have a long root that extends to the roots of the asparagus, and must seriously interfere with them.

I frequently cut asparagus from three to five and a half, and once I cut a spire six inches in circumference, and from five to eight inches long; it could have been cut longer, but it is never tender near the root.—*Correspondent of Farmers' Register.*

COCKROACHES.—A gentleman has recently discovered that spirits of turpentine is an effectual remedy against the depredations of cockroaches. He recommends to put a little of it upon the shelves or sides of bookcases, bureaus, armories, or furniture in which they take shelter, and these troublesome insects will soon quit not only the furniture, but the room. The remedy is simple, and easily obtained by every person who wishes it. It is not unpleasant to the smell, soon evaporates, and does no injury to the furniture or clothing.

VITAL PRINCIPLE OF SEEDS.—A small portion of the Royal Park of Bushy was broken up some time ago, for the purpose of ornamental culture, when immediately several flowers sprang up, of the kinds which are ordinarily cultivated in gardens; this led to an investigation, and it was ascertained that identical spot had been used as a garden not later than the time of Oliver Cromwell, more than one hundred and fifty years before.—*Monthly Mag.*

MULBERRY TREES.

MR FESSENDEN :—By answering the following queries through the *New England Farmer*, you will oblige a subscriber.

First.—Can the common White Mulberry be successfully cultivated by the slip?

The reason for this inquiry is, that among my mulberry trees there is a great difference in the quality of the leaves; while some are large and valuable, others are small, and of very little value; but those producing the best leaves, produce very little, if any fruit. And I have thought, that if we could propagate from the good trees by the slip, we might get a variety much more valuable than those raised from the seed.

Second.—Is the foliage of trees increased by being propagated by the slip, or by grafting? If it is not increased,

Third.—Why are the leaves of those varieties of apples which have long been propagated in that way, larger than those of the natural tree?

Fourth.—Do fruits, whether apples, pears, quinces, or grapes, lose their seeds in any degree by being propagated by the slip, or by grafting? We often see raisins destitute of seeds, and

Fifth.—How is that quality obtained?

There are many reasons which have led to the suggestion of these inquiries, but I will not presume to offer them at present. A. H.

Sterling, Feb. 23, 1836.

By the Editor.—With regard to the first question, I would reply that the mulberry is propagated by seeds, by layers, by cuttings, or by engrafting. By the first method the seed should be sown early in May in a rich, fresh, and well prepared soil, in drills, or rows, two feet asunder, and at an average distance of about an inch in the rows. Cover the seed half an inch deep, and stamp or roll the ground immediately. Keep the young plants free from weeds during summer, and before winter commences protect them with a slight covering of straw, evergreens, light manure, or old hay; or take them up, and secure them from frost in a cellar.

By layers.—Bend the side shoots down, and secure them by hooks, and partly cover them with earth, leaving out only their extreme ends. If this is done in spring, or the fore part of summer, the parts in the ground take root, and are cut from the main plants in the fall.

Cuttings.—The twigs or branches of the young wood, or part young and part old, are cut in lengths of about six inches, and close below an eye; these are set more than two thirds of their length beneath the soil, and the ground trodden about the scions.

Grafting or inoculating.—Writers have recommended to graft the common sorts of mulberry

with the larger and finer varieties, which produce larger, better and more numerous leaves. Perhaps the Chinese mulberry might be successfully propagated by grafting it on the common white mulberry, and the scion partake of the hardihood of the stock. This, however, is doubted, and experiments on that subject are desirable. It is said, in a periodical devoted to silk culture, published at Albany, that “in this country, the cultivation [of the mulberry] is so easy, and the growth so rapid, there seems to be little necessity for any other mode than raising from the seed.”

With regard to increasing the foliage of trees by propagating from slips or grafting; obtaining apples, pears, quinces, grapes, &c. without seeds, we believe that great discoveries and improvements may be made. Darwin's *Phytologia* has much on the subject of so managing fruit trees as to induce the production of fruits instead of leaves, converting leaf buds into flower buds, &c. which may lead not only to curious, but to useful speculation. We should be glad to hear further from “A. H.” on these and other topics connected with the objects of our publication.

[From the *Baltimore Farmer*.]

We published, some months since, a description of the apparatus used by the Hon. Charles A. Barnitz, of York, Pennsylvania, for boiling food for his stock, and from the deservedly high reputation of that gentleman as a scientific and practical farmer, combined with its very moderate cost, it created no little attention, and we have had several inquiries made of us to know, whether it were possible that efficient fixtures could be put up for so trifling an amount; but the most amusing of all the inquiries was one built upon a mistaken construction of that gentleman's description, which, by the bye, was so plain and easily understood that he that run might read. But to dissolve the doubts built up in the imagination of our correspondent, we addressed a letter to Mr Barnitz, asking an explanation, which will be found below in the form of a description, and which he gave us with that promptness and cordiality of feeling which is at once so honorable to the donor and so grateful to the recipient of favors. For ourself, and in the name of the agricultural community, whom upon this as upon numerous other occasions he has benefitted so much, we tender him our sincere thanks.

CHEAP BOILING APPARATUS.

“Take a kettle or vessel of the capacity of forty gallons; (the cast iron kettles are to be had at every hardware store, or foundry) place one of them over a small draft or flue about a foot square, and carry the flue up behind the vessel in the shape of a chimney—made so that the greatest

possible heat may be in contact at the bottom, and back part of the kettle. A rough board shed is put round the whole to shelter it, say about eight feet square, and the chimney is topped out above the roof of this shed.

In about two hours a hogshead of slop may be had from boiled potatoes, or refuse vegetables, which, with a little mixture of corn meal and salt, will furnish a day's keep for 40 or 50 pigs, of the most nourishing, healthy and economical kind."

The expense of this fixture is stated in the former account at \$8, and we would ask, will any farmer or planter, who has any stock worth speaking of, to feed, be longer without such a convenience? If he consults his interest, he certainly will not. There is hardly a farmer in the country that could not set up one himself, and save at least one-third of its expense, so that the cost of it is hardly worthy of being entertained at all.

(From the New England Farmer.)

RURAL AFFAIRS.

BUTTER IN WINTER.—There is much general complaint in reference to the difficulty of churning in winter, and also to the quality of the butter. Moderate winter weather is unfavorable to butter making; the cream being so long in rising that the butter acquires a bitter taste. The method pursued in my family is, to warm the basin into which the milk is strained, and then immediately set it where it will freeze moderately hard as soon as possible. The act of congelation causes all the cream to rise; which is, in a tin basin, often near three fourths of an inch thick. With one of Spain's churns, (sold by H. Huxley & Co. New York,) butter is generally obtained in ten to twenty five minutes. By feeding the cows partly on turnips, the butter is as yellow, and possesses a flavor noways inferior to that made in summer.

Feb. 1836.

S. F.

WATERING LIVE STOCK BEFORE FODDERING.—I would wish to inquire, Mr Editor, through the New England Farmer, if watering horses and cattle, before giving them fodder is more conducive to health than afterwards. While, and immediately after, eating, many people feel a disposition to drink more than what is really conducive to health. It is well known, that if we refrain from drinking for some ten or thirty minutes after eating, much of the sensation of thirst will pass away, — the fluids of the stomach supplying most of the needed moisture. This is more especially so if the mastication has been slow and complete. Cattle, immediately after swallowing their half masticated portion of dry fodder, must doubtless have a strong thirst, leading them to drink more than is necessary. If they are watered before eating they will drink no more than the general

state of the system requires. It is the practice with many farmers to water in the evening before and in the morning after foddering. This brings two dry meals to succeed each other. This practice cannot be correct. It seems to me, therefore, that when stock are fed on dry fodder, and watered twice a day, convenience and reason unitedly demand that watering should be done the first thing in the morning, and at the time of foddering in the evening. And yet this is not the practice among mankind. We all drink during and immediately after eating. I wish the scientific, and those who have experience, would favor the public with information on this subject. S. F.

Feb. 1836.

USE OF TEA AND COFFEE.—The above subject suggests a doubt concerning the propriety of using these drinks. If the nutriment of our food depends much on the saliva being well united with it, and on its being conveyed to the stomach in this condition, it would seem as though the frequent sipping of these drinks rendered the saliva of comparatively no use. How contrary to nature does it appear for a young lady to take into the stomach two or three cups of these liquids with only two or three ounces of bread! How rational to expect numerous pains and diseases as the consequence! When we think of the quantities of beer, cider, wine, spirituous liquors, tea and coffee, that are taken into the stomachs of civilized people, we should conclude that the tendency of civilization was to convert mankind into drinking animals. S. F.

Feb. 1836.

CUTTING CLOVER HAY GREEN.—On the 22d and 23d of June last, I began cutting clover. It was very green; and although it cured slow, owing to the coolness of the weather, I carted some of it into the barn the same day, and the rest the two succeeding days. It was thrown lightly on the mow and moderately salted. In about ten days it had become considerably heated, and some of it turned blackish. In this state it was removed to another mow, and suffered for a while to lie without pressing down. Other hay was afterwards mowed on it. Having occasion, within a few days, to remove this clover hay, I was surprised to find it in excellent order, having a bright color. Horses and cows eat it well. When removed from the first mow it was smoky and dusty. But now no signs of either. S. F.

Feb. 18, 1836.

RICE FLOUR.—Among the many uses of rice is that for washing hands. It is of a gritty nature, between fine sand and Indian meal; answering a most excellent purpose to cleanse and soften the skin. S. F.

CAUSES OF POVERTY

AMONG SOME FARMERS IN MAINE.

Mr. Holmes:—I have thought that I might do good by mentioning a few of the causes of the poverty of the farmers in the state of Maine. And first, in a negative point of view. It is not because the crops are not as good or as much to the acre as other parts of the United States.—When Greenleaf prepared his statistics of Maine some years ago, the average of wheat crops were, in the County of Kennebec, eighteen bushels per acre, and it is believed there has since been an improvement in that, and a very great one too in this section. I think we may now state the average at more than twenty bushels. It is alike good for all the small grains. Grass is abundant in most seasons. We must, therefore, look for the positive causes somewhere else, and not in the unproductiveness of the soil. I will now mention a few things which I think have a bearing to a great extent on the farming community. And first, their mode of living. It costs a farmer in the state of Maine more to live than it does perhaps in any other state in the Union, and I am certain that it costs more to our farmers to raise up a family of four, than it used to sixty years ago, in Massachusetts, to raise up a family of fourteen.

Second. The raising of so much poor and ordinary neat stock and horses. At the present prices none but the best will pay for raising. Our farmers are under family temptations to raise bad stock, a calf comes, round and fat; at three weeks old he is a handsome creature. The boys plead to have him raised. Good family cows being heifer calves, the good housewife insists that they shall be kept and raised, with this argument, viz.: that they will make as good as their dams. Another cause of raising calves is, the wife says she cannot spare the milk to fatten it. Now you should resist all these: kill all your calves but the very best, and give them good keeping. It is impossible that a country where black cattle and horses are fed on dry food so long in the year can afford to raise poor cattle. Set down the first stormy day and calculate the cost accurately and satisfy yourself.

Third. Not ploughing land as often as it ought to be, is another reason. They must sow more; and they do not employ as much capital upon their farms as would be profitable. An English farmer would have a compost heap worth \$4000, while many of our farmers carry on extensive farms, without using manure of every description enough to cost as many cents.

The crops of some Pennsylvania farmers, from one hundred acres, amount to from three to five thousand dollars per annum. Calculate if you please the profits of almost any tilled crops, and

there will be a fair profit. Wheat, barley, oats, and peas, or even oats alone, are all profitable. By neglecting the above, we do not raise our own bread, when we ought to raise hundreds of barrels of flour for market; and it can be done with profit. Try your arithmetic again some leisure evening.

We withhold more than is meet. *Many do not take an Agricultural paper.* This I mention last, though not least. Knowledge is power.

A VOTER AND A FARMER.

SILK CULTURE.—We have received from an esteemed and highly respected correspondent, the following communication, which we recommend to such of our readers as have an opportunity to cultivate the Mulberry Tree:—

“As it seems to be admitted on all hands, that the raising of raw silk can be made very profitable in our vicinity,—we should think that gentlemen who have, or can afford to have, country seats in the neighborhood, would turn their attention to this business as a source of pleasure and profit. The usual course of farming pursued by city farmers, produces frequently more pleasure than profit; for

“He that would by farming thrive,
Must either hold the plough, or drive.”

Indeed the labor required by the common modes of agriculture is very expensive, and the attention and care requisite in a successful application of it must be unremitting. A silk farm, however, may be conducted on a small space and with small expense; and those who would not, for want of strength or inclination, cope with the irksome labors of the dairy and the loom, would take pleasure in attending to the interesting details of such an establishment, connected with a country residence. To make a country retreat truly pleasant, we must associate with it some idea of utility. We must have some occupation there, as a resource against that *ennui* which too often cankers its pleasures.

The vicinity of our city, in every direction, presents numerous eligible situations for genteel retirement, connected with the pursuits suggested, and the facility of communication by steam-boats and rail-road, will render a large circle of the country around Boston, in fact, a part of the city. In thus turning our eyes to the country, we keep steadily in view the growth and prosperity of this city, of which we are justly proud.”—*Centinel*.

PREVENTIVE AGAINST DRY ROT.

We have been favored by an intelligent ship master with the following communication relating to recent successful experiments in England in the means of preserving ship timber against premature decay, which cannot fail to be of practical interest

and value to many of our readers.—*New Bedford Mercury.*

MR LINDSEY:—If you think the following description of the method of preserving timber from rot, insects and worms, now universally adopted in England, is of importance to the public, you will confer a favor by giving it an insertion.

The writer of this is personally acquainted with the ingenious inventor—has attended the lectures in London on the subject, and is satisfied of the efficacy of his plan.

The material employed by the inventor is Corrosive Sublimate, long known as a great preservative of animal substances from decay. The timber to be prepared must be placed in a tank or vessel, from 40 to 80 feet long, 4 or 5 feet deep, and about the same width. A solution of the corrosive sublimate is then thrown upon it until covered; the proportion, according to the inventor, is 1 lb. of corrosive sublimate to 5 gallons of water—but individuals who have tried it, say 1 lb. to 10 gallons of water. Pine plank are saturated in 48 hours. An oak stick, 40 feet long and one foot square, requires three weeks—during which time it becomes effectually seasoned, and will not contract or shrink even on exposure to the highest temperature of a tropical climate. The corrosive sublimate has a strong affinity for the albumen or vegetable juices generally called sap, combines instantaneously with it, and forms a new chemical compound which is solid, insoluble, and will not attract moisture. The efficacy of this invention has been tested in the most extraordinary manner. Pieces of the timber prepared with a solution of the sublimate, and unprepared pieces, the latter well seasoned, were placed in the "*Rotten Pit*," at the King's Dock Yard, Woolwich, in 1828. In 1831, the writer of this was present when they were withdrawn. The prepared timber was perfectly sound—the unprepared, although of the best English oak, was a mass of rot and decayed vegetable matter.

The prepared sticks were left on the ground in the open air six months, and then again placed in the Rotten Pit with other pieces of well-seasoned timber. At the end of two years, the prepared timber was found quite sound—the seasoned very rotten.

The Rotten Pit at Woolwich Yard is a cave under ground, 80 feet long by 20 feet, and built by order of government, for the purpose of testing the efficacy of the various proposed nostrums for preserving timber. The pit is lined, top, bottom and sides, with vegetable matter in the worst possible stage of corruption—very damp and full of carbonic acid gas—it is a perfect hot-bed—a candle will not burn in it a minute, so foul is the air of this subterranean chamber. In fact, no timber, although thoroughly salted, docked, or seasoned, will resist three months the powerful

decomposing qualities of the Rotten Pit. The specimens were placed on the bottom of the pit, and half buried in the putrid vegetable matter with which the cave is kept supplied. This experiment seemed so conclusive, that Government immediately paid the inventor £10,000, and advised him to take out a patent. He was ordered to construct tanks at all the Dock Yards, and the government timber was immediately prepared in the above manner. Previous to this, individuals had fitted tanks, and two wharves were built entirely of timber and plank prepared with the solution. House builders are also using it very generally in London. The sleepers, or foundations for railways—staves for oil casks, canvass, rope, and all vegetable matter may be preserved by its use. It is found that a cubic foot of oak, will absorb three pints of the liquid, which will cost at the present price of quicksilver, 7 1-2 cents per cubic foot. A mere trifle compared with the immense advantage of having a material not liable to be destroyed by rot, worms, or insects of any kind. The objection urged against this material is, its poisonous nature. But it has been proved by careful experiment, that corrosive sublimate, when it combines with the sap of wood, forms a compound perfectly insoluble, and quite innocent—in fact a complete chemical change takes place in the poisonous nature of the mixture by this combination.

The writer has seen experiments tried upon canvass and rope, which was immersed in the solution, and placed four months in a daughill—the unprepared pieces were destroyed—while the texture of the prepared specimens was not weakened in the slightest degree—any one can try this by using the above proportions.

Satisfactory accounts have been received by Messrs B. Rotch and M. Enderby, of London, from the captains of the whale ships constructed at their instance, of timber prepared as above—testifying that the crew were remarkably healthy, although they slept actually in contact with the ceiling plank thus prepared, through all climates and changes of temperature.

It is well known to practical men that salt is not an effectual preservative—as many ships salted on the stocks have been found rotten the first voyage—one instance, the *Enterprise* of Nantucket. The *Goleonda*, of New Bedford, has had a new windlass three voyages in succession, and the lower masts of ships very quickly decay. These parts of a ship it is impossible to salt. In the British navy the use of salt has been discontinued, as it is found to corrode the iron rapidly, and it also keeps a ship in a very damp state.

REMEDY FOR THE CROUP.—The Medical and Surgical Journal of March last, contains a communication from Dr J. D. Fisher, of this city,

cribing a new and successful mode of treating that alarming disease of childhood, the croup, which ought to be generally known. The prescription is simple, and easily applied, and it must be evident that if it should not afford effectual relief to the sufferer, it will not increase the disorder. In the absence of a regular physician, this application may in some cases prove of immense benefit. The following is the statement by Dr Fisher:—

“I was called, at five o'clock last evening, to a child which was laboring under a severe attack of the croup, consequent upon a sudden disappearance of the eruption of measles. The croupy symptoms appeared suddenly, and had existed one hour before I was called. The child, on my arrival, was in extreme agony, struggling and gasping for breath; and I thought the little sufferer was in danger of immediate suffocation. The first means I employed was the application of very hot, almost boiling, water to the throat and upper part of the chest, by means of large sponges.—These applications I repeated every two minutes, and immediately the skin became coated and very red, and in the course of a quarter of an hour the little girl breathed much easier, and her croupy cough and respiration became less shrill and tubular, and much modified. Soon after making the first applications of the sponges to the throat, I wrapped the child in a woollen blanket wrung out in hot water, as a substitute for a warm bath, and gave it twenty drops of the wine of antimony, in a little sweetened water, which she swallowed with difficulty. I persevered in the applications of the hot moist sponges for an hour, when the child was so much relieved that I ventured to leave it for half an hour—ordering the remedy to be continued. On my return, I found the patient breathed with comparative freedom, its respiration and cough less sonorous and shrill, and its pulse softer and more natural. I recommended the applications to be continued until the child should be decidedly relieved, and prescribed six drops of antimonial wine to be given every hour in a little water. The mother of the child informed me, this morning, that she continued to apply the hot water remedy for five hours, but not so often as I applied them—that the child continued to improve, and fell asleep soon after I left it. This morning she is bright and playful, and asks for food. The respiration is quite easy—pulse soft and natural; cough humid and loose; its sounds having lost the shrill croupy character.

I was induced to employ the above remedy, in consequence of having lately read in a foreign journal that it had been suggested and employed by a German physician with decided and uniform success. As the remedy is simple, and is at ready command, and as its application in the present

case was attended with such decided and immediate happy effects, I would, with a good deal of confidence, advise mothers and nurses in similar cases to apply it early and perseveringly until medical aid can be obtained. The sponges should be gently squeezed before they are applied, so that the water shall not ooze from them, and should be gradually compressed during the time they are applied, so as to continue the temperature up to the highest degree that can be sustained by the patient. Should sponges not be at hand, napkins wrung out in the boiling water may serve as good substitutes.”

REMEDY FOR THE LOCK JAW.—We are informed by a friend that a sure preventive against this terrible disease is to take some soft soap, and mix it with a sufficient quantity of pulverized chalk, so as to make it of the consistency of buckwheat batter; keep the chalk moistened with a fresh supply of soap until the wound begins to discharge, and the patient finds relief. Our friend stated to us that implicit confidence may be placed in what he says, that he has known several cases where this remedy has been successfully applied. So simple and so valuable a remedy, within the reach of every person, ought to be universally known.—*N. Y. Er. Post.*

BRITISH MANUFACTORIES.—A good deal was published some 3 or 4 years ago, touching the wretched condition of the laborers in these great establishments of industry. A commission was instituted by Parliament to inquire into their condition on the spot. The investigation appears to have been conducted with care and fidelity. The result of the inquiry was that the condition of the operations, of all ages, especially in the large establishments, was far from being miserable. Their labor is higher than that of the cultivators of the soil. Adults earn per day from 3s. 6d. to 6s. 6d. sterling, and some more. Their employment is not unfavorable to health or longevity.

Another fact of great importance is announced, —“that improvements in machinery invariably increase, at one and the same time the profits of the mill owner and the wages of the workmen.” With this improved machinery, the manufacturer can afford to pay his workmen a higher price.

[From the Maine Farmer.]

SCOTCH OATS.

MR HOLMES:—It is a well known fact to you that the Kennebec County Agricultural Society, of which you were corresponding Secretary, and of course did the business, imported via New York from Scotland, a number of bushels of Oats, in hopes that seed brought from that mountainous country to this might be useful. The seed was

sold at auction, and I purchased two pecks at one dollar the peck. As they arrived late I was obliged to sow them late in the season. I put them upon good land, and they grew large in the straw, but before they ripened were nearly all lodged down. On threshing them out I found that I had eleven bushels, notwithstanding, compared with those sown they were very much shrunk and shriveled. Last spring I sowed five bushels on two acres and fifteen rods of land, in three several pieces, to try what they would do. The land was in various states of richness, some of it in good order, and some of it poorer, some on a spear grass sod ploughed eight inches deep—with little or no dressing of any kind, the land having been mowed as long as it would give any burthen worth mowing. I raised between seventy and eighty bushels. From my experiments I think I may safely make the following statements—viz: That they produce larger and more straw per acre than the common oats. That they produce as many or more oats. That they are this year about five pounds in the bushel heavier though not entirely full, as part of my crop lodged and all were cut too green. That they ought not to be sowed late. That they will produce more of oats and straw on land that is in rather poor condition.

That a decaying or rotten sward of any kind is sufficiently rich to ensure a good crop. That they will probably bring in the market 12½ cents per bushel more than the common oats of this country, and that it will prove a change of seeds that will be of much benefit to the farmer for a number of years to come.

I have fifty bushels which I will sell at a fair price compared with the price of other oats if applied for at my house soon. The oats imported weighed 44 pounds to the bushel.

ELIJAH WOOD.

Winthrop, Feb. 27, 1836.

Caution against Poisons.—Housekeepers should be cautious about using glazed earthen vessels for holding confections, either preserved in acids, or liable to undergo acetous fermentation. The lead used in the process of glazing is deadly poison. It is disengaged by the action of the acids, and diffuses itself through the entire contents of the vessel from which it is corroded. Many persons, not aware of this fact, preserve pickles and sweetmeats in glazed earthen jars, and from the deleterious change which the confections undergo, in consequence, lose their health, if not their lives, without ever suspecting the cause.

Tomato.—It is said that the juice of the tomato vine contains a most superb innate green coloring, which is said to have been used as a dye, and may be made of all the various shades of green, from

the dark to light pale green, and when mixed with other colors, this green coloring is thought to have a stronger basis than any other vegetable.

Cotton for Tooth-ache.—Among the best remedies for tooth-ache, and swollen face, is cotton; put as much into the mouth as can conveniently be kept in, and in a few hours the pain and inflammation will be gone. If the swollen part of the face is covered with cotton, the swelling will soon disappear.

Vinegar in Cream.—Sir: The difficulty and labor frequently attending the churning of butter, led me to try a variety of experiments to ascertain if a method could be discovered for making butter come quicker than the usual mode. After trying several things, I found that by adding a table spoonfull of good vinegar to four gallons of cream, when put into the churn, I obtained butter in from seven to eight minutes. If this information will be of any service to your subscribers, you are at liberty to publish it.—*Far. and Mec.*

Potato Balls.—A lady of our acquaintance recommends the following preparation: Mix mashed potatoes with the yolk of an egg—roll them into balls—flour them, or egg and bread crum them, and fry them in clear drippings, or lard, or brown them in a Dutch oven.

To preserve Books.—A few drops of any perfumed oil will secure libraries from the consuming effects of mould and damp. Russian leather which is perfumed with the tar of the birch tree, never moulders; and merchants suffer large sales of this leather to remain in the London docks, knowing that it cannot sustain any injury from damp. This manner of preserving books with perfumed oil was known to the ancients. The Romans used oil of cedar to preserve valuable MSS. Hence the expression used by Horace, "*Digne cedro,*" meaning any work worthy of being anointed with cedar oil, or, in other words, worthy of being preserved and remembered.—*Green. Gaz.*

CHINESE MULBERRY.—A remarkable instance of this plant's tenacity of life was mentioned to us the other day by Dr Stebbins, of this town.—Dr S. last autumn sent several boxes of the cuttings of this plant to Illinois. One of them was 69 days on its passage, and when received the earth in which the cuttings had been deposited was as dry as powder, yet the buds had started and were shooting forth as luxuriantly as if enjoying the choicest advantages of sun, sky, and soil. No doubt the cuttings of the multicaulis can be sent the world over without killing them.—*Hamp. Gaz.*

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BRIGHTON MARKET, — MONDAY, APRIL 11, 1836.

Reported for the Daily Advertiser & Patriot.

At Market 455 Beef Cattle, (including 100 unsold last week,) 48 pair Working Oxen, 10 Cows and Calves, 340 Swine. 40 Beef Cattle unsold.

Prices—*Beef Cattle*—About last week's, prices were obtained for a like quality; better cattle were sold, consequently higher prices were obtained. We quote a few extra at 43s 6d a 45s; first quality at 39s a 42s; second do. at 33s a 36s; third do. 29s a 32s.

Working Oxen.—We notice sales at \$55, 58, 64, 71, 88, 105 and 120.

Cows and Calves.—Sales were noticed at \$22, 24, 28, and 30

Sheep—None at market.

Swine—All sold. Lots to peddle were taken at 7 1-2 and 7 1-4 for Sows, and 8 1-8 and 8 1-4 for Barrows. A lot to be delivered at Worcester was contracted for at 7 3-8 and 8 3-8. At retail 8 and 9.

25,000 WHITE MULBERRY TREES.

The Subscriber will engage, if applied for soon, a part or whole of the above number of White Mulberry Trees, very thrifty and in good order, to be delivered in the spring.

Feb. 3

G. C. BARRETT.

SPLENDID DAHLIA ROOTS.

Just received from the Lancaster Gardens, a fine assortment of splendid Dahlia Roots. For sale at the New England Seed Store.

Subscriptions and payments to the Silk Manual will be received by the following named

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PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES, Russetts and Baldwins.	barrel	1 50	2 25
BEANS, white,	bushel	2 00	2 50
BEEF, mess,	barrel	12 75	13 00
Cargo, No. 1.	"	10 25	11 75
prime,	"	8 50	9 00
BEEWAX, (American)	pound	27	29
BUTTER store, No. 1	"	20	22
CHEESE, new milk,	"	8	9
FEATHERS, northern, geese,	"	46	50
southern, geese,	"	42	45
FLAX, American,	"	9	10
FISH, Cod,	quintal	3 25	3 37
FLOUR, Genesee, cash	barrel	8 37	8 56
Baltimore, Howard street,	"	7 75	7 87
Baltimore, wharf,	"	7 62	7 75
Alexandria,	"	7 75	7 87
GRAIN, Corn, northern yellow none.	bushel		1 00
southern flat yellow	"	90	95
white,	"	80	84
Rye, northern,	"	1 25	1 25
Barley,	"	90	1 00
Oats, nor hern, . (prime)	"	60	65
HAY, best English, per ton of 2000 lbs		25 00	30 00
eastern srewed,	"	23 00	26 00
hard pressed,	"	24 00	27 00
HONEY,	gallon		
HOPS, 1st quality	pound	13	14
2d quality	"	11	12
LARD, Boston, 1st sort,	"	16	16
southern, 1st sort,	"	16	16
LEATHER, slaughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	19	21
do. upper,	"	18	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	1 17	1 20
PLASTER PARIS, per ton of 2200 lbs.		4 00	
PORK, Mass. inspect. extra clear,	barrel	27 00	27 50
Navy, mess,	"		
bone, middlings, scarce,	"		
SEEDS, Herd's Grass,	bushel	3 62	3 87
Red Top,	"	75	80
Red Clover, northern,	pound	12	13
SILK COCOONS, (American)	bushel		
TALLOW, tried,	cwt.	8 50	9 00
Wool, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	65
do. 3-1ths do.	"	55	58
do. 1-2 do.	"		50
do. 1-4 and common	"	40	45
Native washed	"	38	60
Northern pulled, { Pulled superfine,	"	58	60
{ 1st Lambs,	"	50	53
{ 2d do.	"	40	41
{ 3d do.	"	30	35
{ 1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	14	15
southern, and western,	"	13	13
PORK, whole hogs,	"	9	10
POULTRY,	"	11	15
BUTTER, (tub)	"	18	20
lump	"	22	25
EGGS,	dozen	16	18
POTATOES,	bushel	40	50
CIDER,	barrel	1 75	2 00

SILK MANUFACTURE

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. II.

BOSTON, MAY, 1836.

NO. 1.

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BOSTON, MAY, 1836.

(From the Connecticut Courant.)

THE CONNECTICUT SILK FACTORY.

So great is the interest at the present time to our country in the culture and manufacture of Silk, that almost any thing relating to the subject is sure to attract attention. We doubt not therefore that the following Report will be highly acceptable to our readers. It will be gratifying to the public to learn, that the encouragement afforded by the Legislature to this important department of industry, has been attended with such beneficial results, and to our citizens especially it must be a source of pride and satisfaction, that so useful and well regulated an establishment as that described in the Report, is located in our city.

The Committee appointed by the "*Hartford County Silk Society*," to examine into the present condition and progress of "the Connecticut Silk Manufacturing Company," have attended to the duty of said appointment, and submit the following Report.

On going into the Establishment of said Company, the Committee could not avoid expressing their satisfaction at the good order, neatness, and comfort which every where appeared among its inmates. The weaving room contains about 100 looms, about 60 of which were occupied by neat, industrious looking young ladies apparently from 12 to 20 years of age, and while their labor, that of weaving a fabric from two to four inches wide, appeared exceedingly light and pleasant, there was a general contentment, and satisfaction exhibited in their countenances, or by the singing of some sprightly air.

The charter of the Silk Company provides that the said Company shall instruct one person to be named by each of the County Silk Societies, in the art and mystery of reeling silk without expence. But the Committee learned with great satisfaction that the President of the Manufacturing Company, Mr Colt, the present director of the establishment, is willing to instruct every one who offers, not only gratuitously, but will pay them a reasonable compensation for their services, to the number of two hundred, at least. It is understood that all applicants shall bring evidence of fair moral character, and that their ages shall not be under 15, nor over 40 years.

As the process of reeling the silk from the cocoons is performed only during the summer, those who apply for instruction in this part of the manufacture only, must of course come at that season of the year. But those who remain through the winter will also be instructed in the art of weaving Tuscan Straw, and a variety of other fancy articles.

With respect to the time, and labor required to learn the various arts carried on in the establishment, the Committee saw two young ladies who had been only a day or two at work, and were surprised at the facility with which they produced the finest fabrics.

The prices paid per yard for the fabrics depend upon the ease, or difficulty with which they are produced, so that with equal industry there is but little difference in their earnings. On inspecting the day book, the Committee found that 50 cents per day is nearly the average sums paid those who had been in the Factory for a few weeks.

It is the wish and desire of the Silk Company that the farmers should raise the silk, their daughters reel it, and sell it in the raw state to the manufactures. After the art of reeling has been acquired, the Committee see no difficulty in this arrangement, since the reel is a very simple and cheap instrument, and may be had of the Company at five dollars each, and requires no more room or skill to keep it in order than the common household reel, so universally in use.

The Committee would therefore recommend that every farmer who raises only a few bushels

of cocoons should have them reeled in his own house. This will be found by far the most profitable method, since the difference of price between the cocoons and the reeled silk will much more than pay for the reeling. This difference is so considerable, that even when the farmer raises only a few pounds of silk, the expenses of a reel would every year be saved by having the reeling done in his family.

The chief business of the Silk Company at the present time is the manufacture of Tuscan Straw into fabrics for hats and bonnets; and the Committee were particularly interested in some estimates which the President of the Company had made on this manufacture in a national point of view. If we suppose there are three millions of females in the United States, who purchase each a Tuscan hat annually, at the price of two dollars, then the cost of this single article to the country will amount to 6 millions per year. Taking the last three or four years as examples, it is thought that this estimate is not far from the truth, for it is known that there are upwards of 6 millions of females in our country and we think that common observation is sufficient to show that in the Atlantic States at least, one half of them have worn Tuscan hats within the last year or two, and judging from the known contagious nature of female fashions, we may fairly conclude that a similar estimate may be made with respect to the interior States. But since it takes two or three years for a fashion to pass from one end of our country to the other, it may be objected that our estimate is too high, as not all the females who wear Tuscan hats purchase them in the same year. But it must be remembered that two dollars is probably behind the average price of the article in question, and that the more common price has been from five to ten dollars. It must also be remembered that our estimate with respect to the number of females who wear Tuscan hats is probably much below the truth, so that we believe our estimate cannot be far out of the way.

Now taking for data certain facts presented by the Silk Company, the committee are warranted in believing, that the three millions of dollars expended for the article in question, may all be produced by the females in this country.

In behalf of the Committee,

J. L. COMSTOCK.

The depth of water in some of the great lakes in the West, is represented by travellers as being very great. There are ports of Lake Superior, as well as Huron and Michigan, where the depth of the water is 150 fathoms. The deepest water in Lake Erie is about thirty five fathoms. In Lake St Clair, the water is quite shoal, rarely exceeding four fathoms.

CHINESE MULBERRY.

The following judicious remarks on the Chinese Mulberry, are from the Albany Silk Worm.

Mr Bestor of Suffield, Connecticut, propagated last season from two young trees of the Chinese mulberry, by layers, that is bending down the branches and covering them with earth, two hundred and two young trees, fortyeight of which he sold for twelve dollars: thus from two young trees realizing twelve dollars and saving to himself one hundred and fiftyfour trees, besides the two original ones. What has been done can be done again, any other person, with the same assiduity would, probably, have the same success. But allowing only one quarter of that increase, would in three years produce 16,625 trees, which would fill over four acres, allowing 3,200 to the acre.

Let us now compare the Chinese and white mulberry, and see what advantage either gives over the other. In Mansfield, Connecticut, where they have made silk many years, and still make it from standard trees of the white mulberry, as large as apple trees, the produce of silk is calculated at from forty to sixty pounds to the acre. These trees require, at least, from ten to twenty years growth to begin to produce that quantity. An acre set out with cuttings or seedlings of the Chinese mulberry containing as above stated 3,200 trees, will yield the first year 1600 pounds of leaves, or half a pound to a tree. One hundred pounds of white mulberry leaves, as a general calculation, will produce one pound of silk; but I am informed by a gentleman, extensively engaged in cultivating and feeding silkworms on the Chinese mulberry, that eighty pounds are equal to a hundred pounds of the white mulberry leaves. In that case the 1600 pounds of leaves will yield twenty pounds of silk. The same trees which produced half a pound of leaves the first year, will produce a pound the second year, three pounds the third year, and five pounds the fourth year. The produce of the acre will then be twenty pounds of silk the first year, forty the second, sixty the third, and a hundred pounds the fourth year.

I therefore earnestly repeat the advice to every one who has any thoughts of engaging in the silk business to commence cultivating the Chinese mulberry, if it be on ever so small a scale. If it is with but one stalk, commence with that, and multiply it as fast as possible. If they can get more, do so.

It may not be amiss, however, to endeavor to explain what has caused the doubts respecting the hardness of the Chinese mulberry and of the prejudices which some people still retain against it.

It is well known to every scientific horticulturist that plant of almost any kind, carried from a warm climate to a colder one, are not as able to

withstand the cold as those grown from the seed in the cold climate, but that this hardness to endure the cold increases, as the plant continues to be thus cultivated for several seasons. It is well known that this effect, of becoming acclimated progresses much more slowly, if it even progresses at all, where the plant is propagated by grafting, or cutting or any kind of transfer from the wood of the parent tree, than when propagated from seed by successive generations.

The first knowledge we have of the Chinese mulberry, it was brought to this country from France, where it was obtained from the Phillipine islands, which is a tropical and consequently hot climate. They have been thus far, both in France and in this country, propagated chiefly by transfer of the wood in grafts, layers, &c. and of course incline to retain the natural tenderness of the parent stock. Their consequent liability to be winter killed, was also increased by another circumstance,—when they were first received here, they were thought of great value, and accordingly set in the richest ground and in warm and protected situations. This was one of the surest methods to kill them. Owing to their extremely rapid growth and the continuation of that growth late in the fall, the cold of winter seized them while the sprouts were tender and before the wood was formed, and they were therefore literally killed with kindness. This discouraged many people, and the idea that it would not stand the winter became somewhat general. Some, however, who were more fortunate, or who had more perseverance, found out in time, by experience, that the trees set in a dry, sandy, or gravelly soil, contained less moisture, and the wood hardened, and vegetation ceased sooner in the fall, and that these preservative effects were increased by standing in a bleak exposure. It is remarkable that many persons engaged in cultivating this tree, have independently of, and unknown to each other, come to the conclusion, viz: that rich soil and a warm and protected situation, by accelerating the growth, increasing the proportion of soft, succulent substances, and prolonging its green soft state to later in the fall, were causes of its death, by the early frosts of winter; and that a contrary course tended to its safety.

Imported Silk.—The Northampton Courier states that the Hon. G. Grenell, Jr., of Greenfield, in answer to an inquiry directed to him from Dr Stebbins of Northampton, says that the silk imported into this country during the year 1835, amounted to Sixteen Millions, Four Hundred and Ninetyseven Thousand Dollars.

Cure for Scratches.—White lead, prepared in oil for painting, well put on with a brush. On application generally produces a cure.—*Pough. Jour.*

SILK COMPANY.—If farmers have any doubts remaining with respect to the demand for cocoons, or raw silk, they will be removed on seeing markets opening for them in all directions. The manufacturing companies already formed, will require more of the raw material that will be grown in this country for the next quarter of a century. Many of these companies are incorporated for the purpose of growing, as well as manufacturing silk, on account of the necessity which they will be under for years to come, of producing their own stock. This union of both branches of the business is not a matter of choice but of necessity. The manufacture of silk is a distinct branch of business from its culture, and it would be desirable to keep it so, were it practicable; but until farmers engage in the business with spirit and activity, manufacturers must rely on their own resources to furnish their own stock.

PROGRESS OF THE SILK CULTURE.

The Massachusetts Silk Company organized last week by the choice of the following officers.

Directors.—Joseph R. Newell, Thos. Whitmarsh, Wm. H. Montague, J. Vincent Browne, Sam'l. H. Babcock, Josiah Daniell, John Ashton, George Browne, Francis O. Watts.

Joseph R. Newell was elected President, Francis O. Watts, Clerk, and J. Vincent Browne, Treasurer.

This Company have purchased the beautiful farm in Framingham, belonging to Col. Nath. Fisk, and are now laying it out as a Mulberry plantation, preparatory to going into the Manufacture of silk the ensuing year.

Atlantic Silk Company.

Extract of a letter from Col. Gardener of Nantucket. We shall commence manufacturing silk goods in two or three weeks. We have one invoice of India, and one of Naples silk on hand, and we are daily expecting an invoice from Smyrna, and have also sent orders for a large amount, which will arrive in the country in July or the first of August next. We have had a piece of handkerchiefs sent us from the Spitalsfields weavers, and we trust before long to have the pleasure of exhibiting it in Boston with a piece of *Nantucket*, made from precisely the same stock. In the mean time individuals have commenced setting trees on their own account. I shall put on my farm this spring about eighteen thousand trees, including about twenty-five hundred of the *Morus Multicaulis*. My friend, S. B. Tuck, will set about as many more. We have no doubt at all of the success of the *Morus Multicaulis*, but we have found it impossible to procure them at any price. As many of our white mulberries are small, our present intention is to engraft them another year.

SILK.—We were yesterday shown about eight or ten doz. skeins of beautiful sewing silk, made by Mrs. Sampson Hamilton of this borough. We understand she has made more than enough to make a silk dress. An example worthy to be imitated. We will publish from time to time such information on the subject as may be in possession.—*Meadville Courier.*

Income of the Third Year. — Some farmers decline cultivating the mulberry on account of the time that must necessarily elapse between sowing the seed and gathering the foliage in sufficient quantities to make a profitable crop of silk. That investments which yield a speedy return of profit are to be preferred to those which are longer unproductive is apparent to all; but a shrewd financier always takes into consideration the percentage his capital will give him, as well as the time it is employed. Hence if he is balancing between an investment which will give him six per cent. annually, commencing at the end of the first year and one that will give him thirty per cent. at the end of three years, and afterwards in a double, or quadruple proportion, he will ultimately decide in favor of the latter, and for the best of all reasons — it is the most advantageous.

That farmers cannot realize as speedy profit from mulberry trees as from crops that arrive at maturity the first year, is manifest; but whether taking a series of years together, they cannot ensure a much larger per centage on their capital invested, is a question for experience to decide. We are aware the old method of cultivating the tree, and receiving no profit from it for ten or fifteen years, was a discouraging business; but according to the plan of modern culturists, it requires no extraordinary degree of patience to await the growth of the tree. It is believed by the most judicious cultivators of the mulberry, that silk can be made on the third year's growth of the tree in sufficient quantities to pay the expense of cultivation and a fair per centage on the capital invested.

For the purpose of settling the question, we would recommend to gentlemen who are engaging in the culture of silk the trial of the following experiment; which so far as we can discover, promises a favorable result. — Sow the present season 5 lbs. of white mulberry seed. This, according to the quantity ordinarily allotted, will plant one acre in seed beds. Cultivate the plants till they are two years old, and then transplant them to the nursery. Planted at from three to four inches apart in rows two feet spaces, they will cover from four and a half to five acres. The third year prune the trees, and with the branches cut off, feed a family of worms, and make a crop of silk. That the trees can be successfully cultivated in this manner, no one will doubt; but the great inquiry will be, what number of worms can be sustained, and what quantity of silk will they make? In answering these questions we must rely partly upon experiments and partly upon estimates.

That the prunings and other foliage of a white mulberry tree, on its third year's growth, will furnish food sufficient for one worm, was proved

by a gentleman of our acquaintance the past season. Taking this fact as the starting point, let us next ascertain what number of trees may be expected from five pounds of seed, and what quantity of silk will the same number of worms make. There are in a pound about 280,000 seeds; but as it cannot be determined what proportion of them will germinate, we always consider 100,000 trees a fair estimate. This will give 500,000 trees from 5 lbs. seed, and consequently feed as many worms. A pound of silk is estimated to require the labor of from 2500 to 3000 worms; but we will allow 4000, which being made the divisor of 500,000, will give us a quotient of 125, the number of pounds of silk produced. If we call the silk \$4 a pound, which is below its value if well reeled, it will give a gross income of \$500, the third year.

Now deduct one half for labor, and as much more as you please for failures and disappointments incident to a new project, and see if a farmer can devote a portion of his lands, and invest a portion of his surplus money to better advantage. The experiment may be tried on a smaller scale, if found to be more desirable. — *Genesee Farmer.*

Price of making Cocoons. — In our January number we had an article on the "price of making cocoons," in which we stated that a silk-grower of Mansfield was ready to contract for "making" cocoons at \$1 a bushel. We supposed no person could mistake our meaning; but it seems a correspondent of the New England Farmer understood us to say the offer was to "furnish" them at that price, for in this manner he misquotes our language. Had he read the article, as originally published, he could but have seen that we alluded to the price of making on contract, having the foliage, &c. furnished, and not to furnishing the manufacturer with them from the product of his own trees. The correspondent affects to doubt the "correctness of the proposition," and "to test" it "offers \$2 for 3000 bushels, [\$2 a bushel we presume] to be delivered at the Farmer office any time in the present year." It is probably known to the writer that cocoons have been selling through the season at \$3 a bushel, and that it is expected they will advance 25 or 30 per cent. the coming season. Under these circumstances, he can hardly expect that any silk-grower will furnish him at 50 per cent. discount; but if he has the foliage for the 3000 bushels of cocoons, the silk-grower of Mansfield will gather it and make the cocoons at the price stated. — *Silk Culturist.*

To raise potatoes in Ireland, English seed is planted; in England, Irish seed. — *American Magazine.*

(From the New England Farmer.)

SILK CULTURE.

(Concluded.)

We have seen that one ounce of seed contains 42,000 worms; M. Beauvais employed 8 ounces of seed; he ought, therefore, to have had 336,000 silk worms.

He obtained and realised 1,102 pounds, or 551 kilogr. of cocoons; it requires at the Bergeries but 360 cocoons to make a pound, he has, therefore only brought to a productive state 286,520 silk worms. He lost 4000 at the mounting, by a fault in the arrangement of the *bruyeres* (brush-wood,) ventilation having been nearly suppressed in arranging them. He lost, therefore, in the first ages, 45,480 including the eggs which were not hatched.

It results from an analysis which M. d'Arcet has communicated to me, that the air in the establishment of the Bergeries, during the fourth age, appeared to be slightly alkaline. Water which was condensed in it, by means of a balloon filled with ice, was found to be as limpid as distilled water—it was slightly alkaline; the nitrate of silver did not form a precipitation at the moment of mixture; but very soon it became endued with a pale red. At this period of the process, ventilation was very regular; the air was so little changed that carbonic acid could not be found by means of the water bath, and that the eudiometric experiments made with the air by this water bath, whether by phosphorus, or the deutoxide of nitrogen, always indicated as much nitrogen and oxygen in it, as in the air taken from out-doors and comparatively essayed; this air contained only slight traces of ammonia and carbonic acid combined.

At the period of mounting, ventilation, as I have said, was interrupted, and in part suppressed by the arrangement of the *bruyeres*; and at this time, the air in the establishment had ceased to be as pure. M. Henri Bourdon, who three times analyzed it, found it to be composed in the hundred for a medium term, of

Nitrogen and carbonic acid,	82,57
Oxygen,	67,43
	100,00

The atmospheric air, we know, contains in the hundred,

Nitrogen,	79
Oxygen,	21

It will be seen that this air was already much vitiated. At this period, the water condensed by means of ice in the establishment, was limpid; it had neither taste nor smell; it was alkaline; it was not disturbed by the addition of nitrate of silver; but it almost immediately became colored with a deep brownish red, an abundance of which

was at once precipitated, but which does not appear to have been perfectly defined.

We can imagine what would happen to worms kept constantly in an establishment not ventilated, from the following experiment which M. d'Arcet made with worms which had been bred in pure air. Twelve large silk worms, taken in the fourth age, were enclosed in a quart bottle, into which mulberry leaves had been put at the end of twentyfour hours, the air contained in this bottle had diminished in volume; it was alkaline, and contained in the hundred,

Nitrogen,	79,11
Carbonic acid,	16,50
Oxygen,	3,39
	100,00

This air was, therefore, almost completely vitiated. Of the twelve silk worms, one was dead; the others which were still alive, were drawn up, of a dingy yellowish color, almost motionless; three others died soon after upon fresh leaves; the other eight consumed a little; three made a little silk before they died, two were converted into chrysalis without spinning, and three died without spinning, and without being converted into chrysalis.

I have before stated that M. Beauvais ought to have had 336,000 worms. Out of one hundred eggs, he has, therefore, realised 85,27 cocoons; and lost 1472 silk worms and eggs not hatched.

By adding to the 286,520 worms which spun, the 4000 which died at mounting, we have 290,520 worms, as the result of the process. The worms had eaten 16,830 pounds of leaves; the fresh leaf contains in the hundred—Dry leaf, 32; Water, 68. Each silk worm, therefore, had eaten in the whole course of his life 29 *grammes* of fresh leaves, the *gramme* is equivalent to 15,434-1000 grains Troy.

I have before spoken of pupils. M. Beauvais represents himself as a man of conviction and of progress; but this conviction and progress his ardent and disinterested zeal seeks to give weight to and extend, in a manner which indefinitely increases their influence. To attain this object, he has opened gratuitously at his establishment theoretical and practical courses of instruction, which are attended by young proprietors coming from all parts of France. This year the number of fifteen were attracted to them. Among them were found, with M. H. Bourdon, pupils of Ro-ville, the marquis Amelot; a large proprietor in Gatinais; the son of the baron Mallet; M. Bella, son of the director of the model farm of Grignon; M. Baynard, former prefect of the Hautes-Alpes and of Maine-et-Loire, who is at the present time making considerable plantations of mulberry trees near the Bergeries. After having employed a

part of their time in attending to the smallest details of the mode of management pursued, and in assisting in them with their own hands; in studying the cultivation and treatment of mulberry trees, under the direction of a nurseryman from the South attaches to the establishment; every day during two hours, their worthy master assembles them in instructive conferences, in which are recapitulated and collated all the observations of the day; in which are discussed all the advantages which must result to the country in general, from the interesting subject of their studies, under the various points of view which their social position may give rise to. How many truly logical ideas, how much sound intelligence, how many ameliorating germs rendered fruitful by this powerful reunion of observation and of facts, ought these young and studious citizens, the legitimate hope of the agriculture of the state, to have carried with them to their homes. To describe to you, gentlemen, in a word, both their deep conviction of the advantages which they have received from their relations with M. Beauvais, and the sentiments which his own generosity has given rise to, I ought to say, that before separating, they unanimously voted to him a gold medal, as a testimonial of their own gratitude, so sensibly felt, and so worthily merited. A crowd of persons have enrolled their names to attend the ensuing course. One of these pupils, M. Peycans, a nephew of M. Caussade, a proprietor in Gaudaloupe, has particularly attended to reeling. At the request of the principal colonists, he is going to that island to instruct women of color the reeling of the cocoons; for which purpose he carries with him a complete filature.

But it is a fact, and one which M. Beauvais acknowledges, and gives publicity to, in terms which exhibit at once his character, his gratitude, and his love of truth, that the brilliant results which he has this year obtained — to do full justice to his own intelligence, to the high order of his own mind, and to his assiduous perseverance — he owes indisputably to the arrangement for ventilation, which M. d'Arcet has already made you acquainted with, the plan and description of which, under the name which he has given to it of a *salubrious "magnanerie,"* (habitation for silk worms,) the Society of Encouragement has published in its Bulletin. After various experiments, this simple and economical arrangement has proved to him at last, says M. Beauvais himself, that he had discovered what he had been so long endeavoring to obtain, *an equal temperature and a pure air constantly renewed*; conditions which, added to a minute clearness, assimilate, as near as possible, the artificial mode of raising silk worms in the narrow habitations in which Europe is obliged to keep them confined to the most favora-

ble condition in which nature may have placed them.*

The first application of the system of ventilation of M. d'Arcet to the establishment of the *Bergeries*, imperfect as must be an operation which the want of time only permitted to be arranged without suitable preparation, has resulted in a success which cannot fail to strike every one. God forbid that what remains for me to say should weaken the merit of the applicant and of his rights in your interest! On the contrary, M. d'Arcet has stated himself that it was M. Beauvais, who, partaking of the opinion which that *savant* had formed in travelling, of the mode or process pursued in the South, had induced him to define his own ideas on the subject, and to form a plan of a salubrious habitation. French agriculture will be pleased, therefore, I hope, to unite in the same sentiment of esteem, the *savant* and the practical man. I say French agriculture, because it does not admit of a doubt, if the important experiment which is submitted to you is to have so high an influence on the production of silk, in the central and northern parts of France, that it will much more efficaciously still contribute to the amelioration of the method of process pursued in the South. Let, therefore, those who are most cautious, let those ancient cultivators, who have so much right to entrench themselves under that prudence which we respect in them, and which is the treasure of their whole lives, at least, therefore, wish that similar attempts may be renewed and propagated. But the subject is so important, the question is so grave, that I ask of you, gentlemen, permission to enter again into some details, preceded by a short recapitulation of the conditions essential to a successful process of management, and of the means put in practice to the present day, to purify and render healthy the habitations of silk worms. If we study with care the organization of these worms, which breathe only through their stigmas, and if we analyse the gases which they expire, particularly in the last ages, we shall soon be convinced of the importance of a mild and continual circulation of air, in a room where millions of these little insects must be amassed together, and spread upon the hurdles from whence the unhealthy exhalations are evolved.

In observing, attentively, the continual labors which these small bodies are performing, as well as the effects of dilation and contraction, which are constantly taking place with these insects, particularly at the period of their moulting, it will be perceived that all their functions are performed with more or less quickness and facility, accord-

*In China, there is a wild kind, which breed in the open air upon the mulberry trees of the country, and which they have not yet been able to domesticate.

ing to the degree of heat to which they are exposed; and every one must be sensible of the danger to which sudden changes of temperature must expose them.

Great humidity, of which the least inconvenience is to produce fermentation of the litter, is fatal to the worms which are breathing the unhealthy gases; consequently, cultivators dread, particularly in the fifth age, the warm and damp winds from the South. Within the habitations, besides the external humidity, there is still developed a great quantity, which proceeds from the leaves, and from the worms themselves.

Dryness of the air, besides that it is essentially injurious to the worms as to all animals, even when it is the purest possible, suddenly dries and withers the leaves; and the worms which feel instinctively the want of a certain quantity of water in their aliment, refuse the leaf as soon as it is wilted; consequently the worms suffer, and the leaves are lost.

All cultivators know from their own experience, how important it is to fulfil the conditions of continually renewing the air, of constant equality of temperature, and of hygrometric invariableness; but from the want of means to comply with them, they are obliged to guard against the consequent inconveniences, and for this purpose they are in the habit of burning in the room aromatic plants, of boiling vinegar, into which cloves are put, of sprinkling the worms with the chloride of lime, &c. But the insufficiency and even the danger of such process may easily be conceived.

Dandolo, a skilful cultivator of Piedmont, was not long in convincing himself that these means were fatal to good management, and he very soon completely reformed the method pursued. To purify and render healthy the habitations of silk worms he caused holes to be pierced in the floor, the ceiling and the walls, for the purpose of renewing the air; he repelled fumigations, of the danger of which he was aware; and in the establishments constructed after his plans, and called *dandolieres*, his imitators, who, unfortunately are few in number, because encouragement has been wanting at Piedmont, obtain 100 to 110 pounds of cocoons instead of 50 or 60 to the ounce of seed. Here, in France, the question being brought before you, encouragement will not be wanting.

In the mean time the system of Dandolo is still defective; he established his fire-places within the habitation itself, the immediate action of the heat developed, and of the exhalations spread from the combustibles could not but be pernicious to the worms. Besides his methods are often ineffectual, particularly in heavy and stormy weather, when the circulation of the air is difficult, and when they are obliged to have recourse

to fumigations of the chloride of lime, the application of which it is not possible always to make with the desired regularity.

It is, therefore, necessary to employ more powerful means, and which will be infallible in the application of the principle of purification and health developed by Dandolo; it is then that science truly takes possession of the question; it annihilates completely the action of external influences, transports without the habitation the source of heat, and thereby realizes simultaneously, the four conditions essential to the success of the process pursued.

In the system of M. d'Arcet the habitation of the silk worms is in the first story, the fire-place or *calorifere*, is on the lower floor, in a tight room, called an air chamber. The air passing out of this room, is conducted by tubes placed the whole length of the floor of the habitation, and is let into it by means of circular openings, of various sizes. In the ceiling is arranged a system of tubes and of openings, corresponding exactly with the one below; it is through these upper openings that the air, powerfully attracted by a ventilator and by draft stove (*founeau d'appel*) fixed in the chimney itself, which receives the funnel of the calorifere, passes out, after having been introduced into the habitation, and this draft produces another in the air of the lower room, so that it establishes a continual current. It is only necessary, therefore, to establish a room, not large, conveniently situated, as to temperature and humidity. This result is easily obtained, by producing in it, with the aid of a calorifere, ice, wet cloths, and drying matters, heat, cold, humidity and dryness.

In the month of April, 1835, M. C. d'Arcet sent his plan of a salubrious habitation to M. Beauvais. The time for commencing the operations for the season was approaching; to let this period pass, would be to delay, for an entire year, the application of the system and the knowledge of its results. M. Beauvais was impatient to put in practise the work of science which his own experience ensured him the success of; in a month, he arranged a new habitation, from which, by judicious management, he has been enabled to derive every advantage; he remedied as much as possible the imperfections which must necessarily have resulted from the haste with which the arrangements were executed, and from the novelty itself of the system applied to the management of silk worms.

M. Beauvais immediately found in the important result which he obtained, the reward of his cares and his assiduity, and he flatters himself to have demonstrated more explicitly than it has been previously done under our climate, thanks to the system of purification of M. d'Arcet, for the application of which one attentive and careful

operative is only necessary, that a new era may commence in the management of silk worms.*

However, gentlemen, if the important fact which has just been accomplished near the capital, seems to support the hopes which many enlightened men have entertained, it must be said, it must be repeated, for the cause of truth itself, which would repel an equivocal triumph; that whatever confidence this remarkable experiment merits, and has already obtained, it presents itself yet, as only one isolated fact, entirely recent, at present deprived of the weight which it can only obtain by a repetition of it, performed by different persons under other circumstances, and in other places, and which must thus receive the sanction of time.

The author of this experiment, without doubt, merits encouragement; the attention of those which it interests must be at once awakened, and perhaps continued; new essays appear to be desirable to the real friends of our prosperity; and it is of great importance that these essays should be continued; for that which has excited your attention, has excited that of the skilful cultivators of the South; strangers as they are to undue prepossession, and superior to prejudice. They will wait these new attempts with eagerness, the more reasonably, because they well know that whatever experiments are now making in the North, can only turn to the profit of the South, ready to seize with gratitude new methods which shall appear to them sufficiently tested; they know that the branch of industry by which great fortunes have been founded in the South, will be able, without injuring them, to create in the North similar fortunes, in gradually relieving our common country from the tribute of 43 millions which it pays at this time to foreigners, and which the cultivators of the North, in future emulous, but not rivals, of those of the South, will be able, in a quarter of a century, to share with them as brethren, with constantly increasing benefits.

From these various considerations, gentlemen, your committee of agriculture have directed me to propose to you to insert the present report in your Bulletin, and to refer it to the Commission on Medals. (Signed) SOULANGE BODIN,

Reporter.

*The price current for *grege* silk is at this moment 25 fr. the demi-kilogr. M. Beauvais sells his at 50 fr. It is of that beautiful kind called *Sina* (used in the manufacture of gauze), which Louis XVI. imported from Canton, in 1784, which has been gradually deteriorated in quality, from the negligence and avarice of its original producers; which *M. Poidebard* has, by long and assiduous exertions, regenerated in a remarkable degree, and which M. Beauvais is endeavoring to reproduce in all its primitive beauty.

WHITE AND OTHER WASHES, CHEAP PAINTS, &c.

As this is the month when the cleanly, prudent farmer should be giving his barn, stables, and other out-houses, garden and other fences, a coat of wash of some kind; and above all, as it is the period when the frugal housewife, by the aid of a coat or two of white wash, makes old things look new, and cleanses and purifies her kitchen, pantries, and cellars, we take pleasure in annexing the following recipes from which each may select such as may suit his or her taste best.—*Yan. Far*

To make a beautiful and lasting white wash.

Take one fourth peck unslaked lime, pour on it a kettle of boiling water; while the lime is slaking, add half a gallon of stale chamber-lye; when the lime is perfectly slaked dilute it with water to the proper consistence, and add to this mixture one fourth of an ounce of Prussian blue. This will give you a beautiful and lasting wash that will neither peel off, nor turn yellow, and will look nearly as well as white paint. By increasing the quantity of blue you may make either a pale or dark blue, as best suits your taste; or if you prefer it, by adding yellow or red ochre, you may impart either of these tints to your wash.

To make a cheap Paint, or white wash.

Take 2 quarts skimmed milk; 2 ounces fresh slaked lime; 5 pounds whiting. Put the lime into a stone vessel, pour upon it a sufficient quantity of milk to make a mixture resembling cream, then add the remainder of the milk. When this is done, crumble and spread the whiting on the surface of the fluid, in which it will gradually sink. It must, after all the whiting has been precipitated, be well stirred, or ground as you would other paint, when it will be fit for use. By the addition of any coloring matter you may make it suit your fancy. It should be put on with a paint brush, and when dry a second coat should be given it. The quantity above mentioned is sufficient for 27 square yards.

Incombustible wash and Stucco white.

The basis for each is lime, which must be first slaked with hot water in a small tub or pigg'in, and covered to keep in the steam; it then should be passed in a fluid form through a fine sieve to obtain the flour of the same. It must be put on with a painter's brush; two coats are best for outside work.

First. To make a fluid for the roof and other parts of wooden houses, to render them incombustible; and coating for brick, tile, stone-work, and rough-cast, to render them impervious to water, and give them a durable and handsome appearance.

Slake your lime as before directed, say six quarts, into which put one quart of clean rock salt for each gallon of water, to be dissolved by boiling, and skimmed clean; then add to the 5 gallons one pound of alum, half a pound of copperas, three fourths of a pound of potash, the last to be gradually added, four quarts of fine sand or hard wood ashes, say hickory. You may add any coloring matter that your taste may dictate. It should be put on with a painter's brush; it will it is said look better than paint, and be as lasting as slate; will stop the small leaks, prevent the moss from growing, and render the part painted with it incombustible.

Second. To make a brilliant stucco white wash. Take clean lumps of well burnt stone lime (oyster shell lime will do as well), slake as before directed; add one fourth pound of whiting or burnt alum pulverized, 1 lb. of sugar, 3 pints of rice flour made into a thin and very well bodied paste, 1 lb. of clean glue, dissolved by simmering over a slow fire. It is more brilliant than plaster of Paris, and will last for fifty years. It should be put on warm.

Cheap white Paint.

One pound of unslaked lime, 1 lb. Spanish whiting, 1 gallon of sweet milk, 1 gallon flax seed oil, 1 tablespoonfull of salt. Pour on the lime sufficient water to slake it, and while the lime is slaking, pour in the oil so as to cook it thin, add the whiting and salt, then pour on the milk and superior.

PRESERVING AN APPLE TREE.—The following novel mode of preserving the life of an apple tree, was tried last season by Mr Mandell, of Barre, and the tree this year bears abundantly.

"The bark was eaten off from the body of the tree entirely around, for the space of two feet or more, as clean as if it had been scraped; he removed the uneven and jagged portions up to a uniform ring; then took young shoots, and sharpening them at both ends, inserted them at each end into the bark to act as conductors of the sap, and covered the whole over with moist and rich earth to the height of a foot or two above where the bark was eaten off; the scions took root at both ends, and acted as conductors for the sap. On that side where the sticks were placed thick, the tree was entirely restored, the other side, where they are fewer, is partially decaying."—*Barre Gaz.*

Two centuries after the worship of the gods of mythology was questioned at Athens, Cicero first ventured at Rome, in a philosophic way, to break up their altars in the "Eternal City."

RECIPE FOR MAKING COLD SOAP.—The leach tub or hoghead must be covered at the bottom with straw and sticks—then put in a bushel of ashes, then two or three quarts of unslacked lime, upon which you must throw two quarts of boiling water to excite fermentation and slack the lime; put in another bushel of ashes and as much more lime and water, and continue to do so until your vessel is full; put in hot water till you can draw off the lye, after which the heat of the water is not of much consequence. You must have, at least, two thirds of a bushel of lime to a hoghead, if you wish your soap to be made quick; one hoghead of ashes will make two barrels of soap. When you draw off your lye you must keep your first two pailfuls by themselves, and the next two in another vessel, and the third two in another vessel still: then weigh 29 pounds of clear, strained grease, or of scraps, without straining, 32 pounds, put into a kettle with three pounds of rosin; then pour over it one pailful of lye from the first drawn vessel, and one from the second drawn vessel; put it over the fire, and let it boil twenty minutes—be particular to add no lye over the fire, but swing off the crane if it is in danger of boiling over; put it into your barrel, and add one pailful of lye from the third drawn vessel, and give it a thorough stirring; then weigh your grease for another barrel, and take the lye remaining in the vessels, in the same manner as for the first barrel; then draw off your weak lye, and fill up the vessels as fast as possible, remembering to put half to each barrel, that they may be equally strong; if your leach run through fast, you may have your barrels full in an hour, and so hard that you can hardly stir them. You must stir it after you begin to put in your lye, till your barrel is full. Fourteen quarts of melted grease is the quantity for a barrel.

[Many families in this town make their soap according to the foregoing with perfect success.]—*Hamp. Gaz.*

BET SUGAR.—A beautiful specimen of sugar manufactured in France from the beet, was exhibited at the Philadelphia Exchange recently.—The lot was purchased in Havre at 9 1-2 cents a pound, and was brought out by a number of gentlemen of Philadelphia, who sent an agent to procure all the necessary information relative to the process of manufacturing sugar from beet in France, where it is so extensively carried on as to excite great discontent among the planters of the French colonies.

A great man once remarked, "I have had long experience, and I never knew a rogue happy."

SILK.—Of the prodigious value of foreign silk goods imported into the United States, the people of this country generally seem not to have been fully aware. The aggregate amount of this trade for the year 1834, has been estimated at about twelve millions of dollars—which included all the imports from abroad, both from Europe and India. But we have now before us an official document, for which we are indebted to our attentive representative in Congress, Mr Reed, which discloses the astonishing fact, that during the year 1835, there were imported into the United States, from *France alone*, silks to the value of \$12,129,640—being nearly double the amount of importations for any preceding year, and upwards of three times that of the year 1830! The value of imported silks from England, Germany, Italy, Turkey, China, and other countries, during the last year, we have not at present the means of ascertaining. If this be estimated at only one half the above sum, we then have an aggregate of upwards of *eighteen millions* of dollars!

Is it not high time that the American people should realize the important fact, that the enormous amount of money thus annually drawn from their purses, is paid for articles which may be as abundantly produced, and as successfully fabricated, to say the least, in this, as in any other nation on the face of the globe? Has not the time arrived, when legislators, political economists, and patriotic citizens of every class should look deeply into this subject, so obviously momentous? It strikes us that there is no branch of domestic industry, which, at this moment, so imperiously demands not only the attention, but the fostering aid and generous patronage of government.

Individuals, scattered here and there—and small associations, with limited means—may toil through a course of years, and by slow and gradual advances finally bring to perfection the culture and manufacture of this precious material. Private enterprise and ingenuity may also facilitate the progress of these undertakings; and capitalists may engage therein to a certain extent. But the paramount protection and encouragement of the national and state authorities, even if but partially extended, will accomplish the object almost instantaneously. In view of the immense results to be reasonably anticipated from the introduction and establishment of the silk manufacture—promising such advantageous changes in our foreign and domestic relations—it becomes evidently the duty of those who are entrusted with the management of our public interests to provide liberally for its speedy promotion.

From the document before mentioned we learn one remarkable fact relative to the silk trade between France and the United States, which shows that, after all, we have been no great gainers, as a

nation, by the payment—or the agreement to pay—the indemnity of five millions. The amendments made in 1832, to the tariff act of 1828, in regard to the duties on imported silks and wines from French ports, must have served as a stimulus, if indeed they were not intended as a bribe to the government of France, in the way of inducing a seeming act of justice on their part. It appears that we have actually more than defrayed the whole amount out of our own pockets, by means of the reduced duties on silks alone, within the last three years. France, or those engaged in the silk trade with that country, save it, in consequence of the diminished impost on silks, in 1833, \$1,061,579; in 1834, \$1,532,063; and in 1835, \$2,627,184: in all, no less than \$5,270,826. Upon wines, the saving to France from the same cause, amounted to \$695,031. So that, for the boasted five millions indemnity, we have granted far more than an equivalent—the French trade having been benefitted to the amount of nearly six millions—of which sum our treasury has been deprived, through the operations of the act of 1832—an act authorising the reduction of our own revenue for the exclusive benefit of France. Well might such a measure tempt the rulers of that nation to the discharge of a portion of our claims—a portion covered entirely by a remission of the customary duties on a single article of commerce!—*Nan. Inq.*

SILK COMPANY.—It is with much pleasure that we state to the friends of the cultivation of silk, that the Chester county Silk Company is thoroughly organized, and proceeding with great diligence in the object of their corporation. From the zeal and intelligence of the President and managers, it will commence under the best auspices.

The company have purchased 12 acres of the Matlack estates within the limits of the borough. Two acres are already ploughed, and one thousand trees of several years growth will be planted in a few days. The company have also sent to Baltimore for a quantity of the Chinese mulberry.—*West Chester Record.*

CURE FOR THE BIG HEAD.—Big Head is essentially a scrofulous disease. Take an ounce of corrosive sublimate, and dissolve it in one pint of alcohol, or one quart of fourth proof brandy. Wash the part affected thrice, or oftener in a day, until it is well blistered. Cure up the wound with elder bark and lard salve, or any other application. A few blisterings will effect a cure.

RAILROAD FROM NEW YORK TO PHILADELPHIA. It is rumored that the Joint Companies have determined to make their branch Railroad from New Brunswick through Trenton.

[From the Genesee Farmer.]

PRUNING FOREST AND FRUIT TREES.

The operation of pruning, like every other business of the farm, should be the result of system, and conducted with a definite and well understood object, a course very different from the haphazard manner in which it is too frequently performed. The desired shape and form of the tree—the kind of tree to be pruned, whether fruit or forest tree, should be considered, and every branch should be cut off with reference to these things. It is evident at sight, that a tree to produce fruit in perfection, should be subjected to a very different treatment from one intended for forest growth, or timber alone. In the first a large open top or crown is required—in the last, the great effort should be to keep the top from spreading, and the leading stem upright and free.

In order to keep a tree perfectly under command, and the direction of its branches under control, pruning should be commenced when the tree is small, and continued yearly, or as often as the operation is required. Yet in riding about the country, the stunted, scrubby trees, and inferior fruit, that are so frequently presented, proves that this important business of the farm is mostly overlooked, or very imperfectly attended to.—Fruit trees should be so pruned as to bring every part as much into the sun and air as possible. Some kinds, such as the apple, produce fruit in all parts of the top, and if that is left thick and compressed, the apples in the interior being excluded from light and air will be small, and of a very inferior quality. Care should, therefore, be taken to leave such branches as have a proper inclination and spread, so as to afford the greatest possible exposed surface to the sun.

The training of two upright stems, as we frequently witness in fruit orchards, should from the first be carefully avoided, and where they have been permitted to exist, no time should be lost in removing one of them from the tree. When young, such a stem may be cut off without injury, but when they have become large they cause a large wound; still it is better to run the risk of this, than to have them, when heavily laden with fruit, split down, as they most assuredly will, and thus destroy the tree. Peach and plum trees are peculiarly liable to this result, nor indeed are any trees entirely exempt. The horizontal branches are so firmly supported by the intertwining of their fibres with those of the main stem, that they rarely fail, while divided upright stems never firmly unite, and are therefore always in danger. In addition to the difficulty of giving a proper shape to trees when pruning has been long neglected, another serious evil must be encountered in the decayed places so apt to occur where large branches are cut off, in which worms and insects

find a harbor, and where blue birds and wood peckers not unfrequently make a lodgment, and thus perpetuate the mischief. To prevent the evil, most of our respectable farmers and orchardists make a practice of covering such places when the wounds are first made, with some preparation which will exclude air and moisture, such as the wax used for grafting—with paint laid on with a brush—with tar thickened with brick dust—or, what in the situation of some is better than any of these, with tar hardened by use and exposure, and taken from the axles of wagons, carts &c. Any of these may be useful, and the more so in proportion to their durability, as such covering preserves the dry wood from decomposition, and by the exclusion of air, somewhat assists the formation of new wood and bark.

As to the proper time of pruning, various, and in effect, contradictory opinions have been advanced, almost every season of the year having been alternately proposed. Mr McMahon, in his *American Gardener*, says, “as early in this month (March) as possible, finish pruning your cherries and plums—also before the end thereof, your apple and pear trees. Peaches, nectarines, apricots, almonds, quinces, &c. should also be pruned early in the month, if not done before. The pruning of all kinds of fruit trees should be finished before the buds begin to swell or push.”

Judge Buel's directions for pruning are: “Begin to prune when the tree is young; cut close and smooth to the bole or limb; cut, when small, all the branches which will require to be removed at a more advanced period of growth; do not trim to excess; do not prune when the tree bleeds; and *prune in the summer*.” To justify the innovation of summer pruning, he refers to Pontey and Sang, foreign writers of merit, the first of whom says: “As a general rule, summer is preferable to winter pruning”—and the latter of whom suspends pruning “from the beginning of February to the middle of July, but carries it on during every other season of the year.” The time recommended by Judge Buel for summer pruning, “is between the first and second growth, late in June or early in July.” The reasons he assigns for summer pruning are, “1st. It causes no loss of sap; 2d. The wounds are readily healed by the aid of the already descending elaborated sap; and 3d. That shoots seldom grow from the edges of wounds made in summer pruning.”

The *Genesee Farmer*, vol. 3, page 11, says:—“May is the proper month for pruning in this latitude.”

David Thomas, one of the best authorities, says—“In regard to the season for trimming, I am rather partial to the winter, or indeed to any time when the sap does not flow. The stump being

comparatively dry, especially if we defer the coating for a few days, I have believed it in a better condition to receive the paint, than when the buds are just opening into leaf. The argument that the new wood in summer pruning immediately begins to cover up the wound, I think possesses but little weight."

Mr Kenrick, in the *New American Orchardist*, says—"The most suitable time for pruning is that interval between the time the frost is out of the ground in the spring, and the opening of the leaf."

The result of these conflicting opinions in our mind has been, not that pruning was not useful and indispensable, but that it makes but little difference at what season of the year the operation is performed, with the exception, perhaps, of a month or two in the spring, while the sap is ascending most rapidly, and in consequence the tree is most liable to suffer injury from bleeding. If, as Judge Buel states, one of the results of summer pruning is to prevent the formation of sprouts or shoots from the wound, a great point has been gained; but we do not recollect any experiments that go to sustain this opinion, agreeable as it certainly is to the correct theory of vegetation. It is to be wished that farmers and orchardists would, by fair and thorough experiment, settle the question of pruning, and by publishing the results, enlighten the great body of their brethren on this topic. Till this is done, let farmers prune their orchards when most convenient, (with the exception made above,) and a great increase of fruit, both in quality and quantity, will, we are confident, be the result. W. G.

GRAFTING WAX.—We would advise our farming friends to prepare, in the course of this month, when stormy days prevent work abroad, a quantity of grafting wax; as it is sometimes inconvenient to allow time when wanted, and the husbandry of time is one of the secrets of success in farming. The following proportions of the usual materials have been recommended as good, viz: two and a half pounds of rosin, one pound of beeswax, and one pound of tallow; or one pound rosin, three pounds beeswax, and two pounds tallow; but the recipe we use, and which we know to be good, is as follows,—half a pound of tallow, one pound of beeswax, and two pounds of rosin,—the whole melted together, and then worked in water like shoemaker's wax into rolls for use. Where the grafting is to be performed in the nursery, or on small trees or branches, the most convenient mode of applying the wax is by having it on strips of muslin of a width proportioned to the size of the tree, from one to three inches. These strips of muslin are prepared by

taking cotton cloth, cutting it into strips and dipping them into the wax when melted. When the branches are large, it is best to apply the wax directly to the cut limb, and when of a proper consistence and temperature, with the hands kept slightly greased, the use of this composition is perfectly easy and effectual. If you make a little more than you use this spring, it will not be lost; we have some two years old, which retains all its good qualities.—*Genesee Farmer*.

IMPORTANT INVENTION.—Mr William Kean, of Haverstraw, has, in conjunction with Mr Thaddeus Selleck, obtained letters patent for a machine for cutting screws, which probably excels anything of the kind now in use in Europe or America. The principle of the machine consists in circular dies, which have a motion towards each other, while, at the same time, they make upwards of 500 revolutions a minute. These dies receive the screws at the top of a cast iron pot in which they are secured, and when it obtains its proper thread, it is thrown off by means of an inner spindle, and another instantly takes its place, the dies preserving their usual velocity, without changing their rotary motion. The saving of screws is another important consideration in favor of these machines, as it is difficult to spoil one upon them. Their construction is simple, and we understand that one, containing four sets of dies, and upon which a boy can turn off thirty gross per day, can be built at a cost not exceeding \$150. They are now in operation at Selleck & Kean's Screw Factory at Samsondale, in this town.

The above article is copied from a late number of the *North River Times*, published at Haverstraw, N. Y. The machine therein spoken of, will, undoubtedly, perform all that is said of it, but as to its "excelling anything of the kind in Europe or America," that must be a great mistake. A machine has recently been invented by C. Read & Co. of Worcester, which will cut 30 gross of screws per day, with *one pair of dies*; and one boy can tend from two to four machines, according to the length of the screw. They have several of the above now in operation at their manufactory. We understand they contemplate extending their works, being unable, at present, to meet the demand for their screws.

CORN ROLLS.—Take a quart of meal, a spoonful of lard, and two spoonfuls of yeast; mix with warm water until the dough is quite soft. Set it in a warm place at night to rise, and bake it in a pan or in cakes in an oven for breakfast. This bread will bake very well in a stove.

CULTURE OF SILK.

Extract of a letter from Dr Thomas White, of Mount Pleasant, to a citizen of Steubenville, (Ohio,) dated MOUNT PLEASANT, Dec. 13, 1835.

Dear Sir,—Yours came duly to hand; and in reply, I am happy to inform you that I have succeeded very well; and am fully convinced that the culture and manufacture of silk, will before long, become one of the most important pursuits that have ever claimed the attention of our citizens. In my view there are three reasons why it should become so.

1st. It must, and will most inevitably become a great source of wealth to all who turn their attention to it, especially to the farming part of the community, if they can be encouraged to engage in it. To them it will be attended with but little expense to raise the cocoons; a female of an ordinary constitution will be able to tend from 30 to 40,000 worms, which if well fed and properly taken care of, will yield from 10 to 15 bushels of cocoons, for which we will give them from \$4 to \$4.50 and \$5 per bushel, according to quality; or manufacture them into goods agreeably to order. Good cocoons will yield one pound of reeled silk per bushel; each pound will make 12 square yards of good substantial goods, worth from \$1 to 1.50 per yard. Thus 30,000 worms will produce ten pounds of silk, or 120 yards of goods; and supposing it takes two thirds to pay for the manufacturer, it will leave the producer forty yards of goods; and counting the labor at one dollar per week (which will be the time employed), will reduce the price of the silk goods to 12 1-2 cents per yard, or \$1.50 per pound.

Now, I would ask you, and every farmer in our country, by what means can our females clothe themselves cheaper than by feeding silk worms? I know none. It is only the business of five weeks for a female to provide herself with forty square yards of goods, worth more than one hundred and twenty yards of the best cotton goods she can find in the market—these are no visionary dreams; but practical facts founded upon experience. This season I raised enough for about three hundred yards of silk, which did not cost me more than 12 1-2 cents per yard to raise the cocoons, counting my labor of one hired female and my daughter, each at a dollar a week. It is the tedious process of manufacturing silk, that will, for a time, make it expensive: but this expense falls on the manufacturer, not on the farmer, or silk grower. As it respects the food for the worms, I am unable to see any great superiority that the Italian leaf has over our native leaf. I am inclined to believe that the principal advantage the Italian has over the native is, that these can be brought into quicker use, as they are much more thrifty in their growth than our native

trees. I fed mine this season principally from the native tree, and expect to feed as many as one million next season from the same source; my grove of Italian trees being too young to yield much food. Our native tree of the middle size will produce food enough for 3000 worms, or a pound of silk per tree; each tree that a farmer has is worth more to him than two sheep.

At a sale of lands in Northampton last week, several lots of meadow land were sold at \$114 a 134 for meadow plough land, and \$78 1-2 a 104 for grass land. This is said to be the highest price ever given for meadow land in Northampton.

SILK ACT.

The following act was passed at the late session of the Legislature of this State.

“*Be it enacted, &c.* as follows:—Section 1. There shall be allowed and paid out of the treasury of the Commonwealth for every ten pounds weight of cocoons of silk, the produce of silk worms raised within this Commonwealth, the sum of one dollar, and in the same proportion for any larger quantity of cocoons to be paid to the owner of such worms, or his legal representatives.

Section 2. There shall be allowed and paid out of the treasury of the Commonwealth, to every person who shall reel or cause to be reeled, and to every person who shall throw or cause to be thrown in this Commonwealth, from cocoons produced from silk worms raised in this Commonwealth, a merchantable silk, capable of being manufactured into the various silk fabrics, or to the legal representatives of such person, one dollar for every pound of silk so reeled and thrown, and fifty cents for every pound of silk, reeled without being thrown.

Section 3. When satisfactory evidence by the oath of the party or otherwise, shall be exhibited to the selectmen of any town in this Commonwealth, that any person, being an inhabitant of such town, is entitled to claim the bounty or bounties provided for in the first and second sections of this act, they shall give a certificate thereof in writing under their hands, stating the quantity of cocoons produced, or of silk reeled or thrown conformably to the provisions of said sections, and that such claimant is entitled to the bounty or bounties therein allowed, and when such certificate shall have been filed in the office of the Secretary of the Commonwealth, the Governor, with the advice of the Council, is hereby authorized to draw his warrant on the treasurer therefor.

Section 4. If any person shall claim a bounty more than once for the same cocoons, or silk so reeled or thrown, or obtain any bounty under this act, through fraud or deception, such person shall

forfeit to the use of the Commonwealth, a sum not more than one hundred dollars, in addition to the amount of any bounty he may have received, to be recovered by indictment in any court proper to try the same.

Section 5. This act shall take effect in thirty days from the time of passing the same, and continue in force during the term of seven years from the time of its going into operation, and an act entitled 'An Act to encourage the reeling and throwing of Silk,' passed the seventh day of April in the year one thousand eight hundred and thirtyfive be, and the same hereby is, repealed, but nothing herein contained shall affect the right of any person entitled to any premium under the said act.

Section 6. The provisions of this act shall not apply to bodies politic and corporate."

Approved by the Governor, 11th April, 1836.

GRAFTING.

A great number of different modes of grafting are practised, and minute directions are given in books on gardening for performing the work. The young beginner is generally more bewildered than instructed by the multiplicity of these directions, unless he understands the *rationale*. By reducing the operation in all its modifications to its first principles, it will become greatly simplified, and the necessary particulars for success at once understood.

In order to cause an adhesion between the graft and stock, it is requisite, first, that the sap which flows upwards through the wood, should be able to pass uninterrupted at the place of their junction. Hence the parts of both must be cut so as to be placed in close contact. Secondly, it is necessary that the juices, in returning through the liber, (or inner portion of the bark,) should pass uninterrupted from the graft to the stock. Hence these parts also must be placed exactly in contact.—Thirdly, it is necessary that the newly formed woody fibres which descend from the buds of the graft, and which serve to connect the two parts together, should pass freely from one part to the other; and also that the *cambium*, or soft substance between the bark and the wood, which serves as food for these young descending fibres, should be continued at this point of junction. Hence the line of separation between the bark and the wood, should, both in stock and graft, be accurately adjusted. On the accuracy with which these three parts of the operation are performed, the success mainly depends. And if these are attended to, it is immaterial how great a variety of modes are adopted. The most inexperienced and unskilful hand, if care is taken in these particulars, could scarcely fail.

Although any mode of grafting would succeed

if the above precautions were observed, yet convenience generally points out some particular one, adapted to the circumstances of the case. The most expeditious method of performing the operation when small stocks are to be grafted, is by *whip grafting*. This is the mode generally adopted in nurseries. It is performed thus. The stock and the graft are both cut off obliquely, or sloping, so as to leave a cut surface of about an inch in length. The degree of slope should be the same in both, as nearly as the operator can guess. If the cut is made by a single stroke of a sharp knife, the parts may be brought together more closely. Next make a slit in the middle of the cut face of the stock, downwards, about half an inch, and a corresponding one in the graft, upwards. Now by pressing them together, the tongue and slit will mutually lock together.—Then, taking care not to displace them, tie them closely together with bass matting, corn husk, or other soft ligature, apply the plaster, and the work is done. When the graft begins to grow, remove this ligature to prevent its cutting in. Where this mode of grafting is adopted, it is desirable that the stock and the graft be of nearly equal size.

But where the stock is much larger than the graft, *cleft grafting* is most convenient. This is done by first cutting off the stock horizontally with a large knife or saw, and a cleft is then split downwards in it an inch or two in length. The graft is then cut off on both sides in the form of a wedge, of such a shape as to fit as nearly as possible this cleft. The cleft is then kept open by a knife or wedge placed in the opposite side, and the graft, prepared as above, carefully adjusted in it, and then the wedge is withdrawn. The plaster is then applied and the operation is complete. This mode has an advantage over the former in not needing a ligature, the pressure of the jaws of the slit being sufficient to hold the graft to its place. It may be observed, that as the cleft is made lengthwise with the wood, the sap in passing from the stock to the graft flows *laterally* from its vessels, which it will do with nearly the same facility as from the ends.

As a sharp knife for cutting the joining surfaces is absolutely necessary, it is generally most convenient to employ two knives,—one for doing the chief work and in shaping the wood; and the other, exceedingly sharp, merely for paring the surfaces for contact.

Where standard trees have been headed down for new tops, the grafts should be set on the thickest shoots, and as near the body of the tree as these can be found; and strict care should be taken to cut away all overshadowing branches in their immediate vicinity. As the grafts increase in size, the old top should be gradually and finally removed.—*Genesee Farmer*.

BRIGHTON MARKET,—MONDAY, MAY 23, 1836.

Reported for the Daily Advertiser & Patriot.

At market, 198 Beef Cattle, 18 Cows and Calves, 75 Sheep, and 360 Swine. 48 Beef Cattle unsold. Also 43 left within a few miles of the market.

PRICES. Beef Cattle—Last week's prices for a like quality were well supported. We noticed a few extra and very fine taken at 51s; first quality at 46s a 49s6d; second quality 41s3d a 44s3d; third quality 36s a 39s.

Cows and Calves—Sales at \$21, 24, 32, 35, 40 and 43. Sheep—No sales effected at the close of the market.

Swine—Prices have declined a little; a very few purchasers to peddle. We quote selected lots 8 for Sows and 9 for Barrows; two lots Barrows, not selected, 8 and 9 1-2. At retail 9 and 10.

Horses—We noticed sales as follows: \$50, 75, 125, 150, 155 and 178.

FRENCH SUGAR BEET and MULBERRY SEED.

WM. PRINCE & SONS, Flushing, Long Island, have imported a few hundred pounds of the yellow and white Sugar Beet Seed, which they supply at \$1 per lb. This vegetable bids fair to become an object of extensive culture throughout our country for the manufacture of sugar.

Also, 200 lbs. genuine white Italian Mulberry Seed, crop 1835, an article so rare at the present moment, as scarcely to be obtainable elsewhere; and it is with pleasure we announce to our correspondents that they will not be disappointed when they apply to us for this rare article.

Chinese Mulberry Trees and Cuttings by 100 and 1000—Apply by mail direct to us.

650 bushels Whitefield Peas of a very prolific variety and of excellent quality by Barrel or Tierce.

May 25. 2t

60 ACRES

Of the best land in Roxbury, for sale, situated on Brush Hill Turnpike, about 4 miles from this city, near Grove Hall, together with all the buildings thereon, comprising a convenient dwelling house, 2 barns, one of which has a cellar, and is capable of holding 100 tons of hay, with an inexhaustible well of soft water contiguous—a mill house—corn barn, sheds, &c.—large, valuable orchards of inoculated fruit trees of all kinds,—a nursery of young trees—gooseberries, currants, &c. The land is well adapted to the growth of the Mulberry and is accessible by two roads. For further particulars enquire of Charles McIntire, No. 5, Exchange street, Boston, or of the subscriber on the premises.

THOS. H. DARLING.

Roxbury, May 23d, 1836.

FRENCH SUGAR BEET.

A valuable root for the table when young, and for Cattle when fully grown; v. ry productive. 2 to 2 1-2 lbs. will seed an acre. For sale at the Seed Store, 51 and 52, North Market street. May 25.

WANTED,

A man thoroughly qualified to take the management and work on a small Farm. A married man will be preferred if the wife can undertake the cooking and washing of a small family. The best of references will be required to such persons with whom they have lived, as to capabilities and character. Letters addressed post paid to box 265 New Haven, or application to the Agricultural Warehouse, will be attended to. May 25.

SILK WORMS EGGS.

Just received at the New England Seed Store, a few thousands of Silk Worms Eggs of the different varieties White, 2 crops a year, Black and Mammoth, in papers, from 25 cts. o 2 00 per paper. May 25.

PHINNEY CORN.

For sale, a few bushels of this superior Early Corn, recommended in the current volume of the New England Farmer, Capt. Daniel Chandler. Price \$3 per bushel. May 18.

CARROT SEED.

For sale at the New England Seed Store, 250 lbs. very fine Long Orange Carrot Seed. Every farmer knows the value of carrots as fodder for horses and cattle. It is calculated that one bushel of them, is fully equal to one bushel of oats. They produce on an average 500 bushels to the acre. The seed may be sown to the 20th of June. May 18.

MORUS MULTICAULIS SEED.

Just received fresh from Canton, per the Neponset, a quantity of Genuine Chinese Mulberry Seed. This seed is undoubtedly of the growth of 1835. It was thoroughly tested in Canton by the gentleman who imported it, and there is no doubt of the genuineness, or the quality of the seed, and its vitality. One ounce of seed will give about 5000 trees. For sale at Barrett's New England Seed Store, Nos. 51 and 52 North Market street, Boston. May 11.

NATIVE FOREST TREES.

The subscriber will furnish the following kinds of Native Forest Trees from the vicinity of Bangor, Maine, and ship them carefully, according to orders, viz.: Silver Firs, (from 2 to 3 feet high); Elms, (from 5 to 25 feet); Rock Maples, (from 5 to 25 feet); Mountain Ash, (from 5 to 25 feet); Spruce, Sumachs, Pines, and Cedars, Red Cherry, Sugar Plums, and Junipers. Also Seed of the above trees furnished in their season. Any orders addressed to the subscriber, Seedsman at Bangor, or left at Geo. C. Barrett's New England Seed Store, Boston, will meet with prompt attention.

Bangor, May 2, 1836. WM. B. HARLOW.

WINSHIPS' ESTABLISHMENT.

All orders forwarded by mail will be executed with promptness, or plants may be selected by persons visiting the Nursery.

Just received from Europe, a large quantity of productions, among them, new and superior Gooseberry Trees, from Scotland, with specimens of fruit preserved in alcohol.

SILVER LEAF ABELE TREES, a suitable, and very ornamental for islands, sea coasts, or public grounds, at reasonable rates, by the hundred or thousand; remarkable for its beauty and quick and vigorous growth.

Brighton, April 13.

FARM FOR SALE.

For sale a Farm in Bedford, County of Middlesex, 17 miles from Boston and 10 from Lowell, containing 104 acres including about 15 acres covered with a valuable growth of wood which has been preserved with great care for the last 20 years, the garden contains about 3 acres under the highest cultivation and is furnished with a great variety of flowers and shrubs which have been collected at much labor and expence; attached to the garden is a Green House filled with thrifty bearing Grape Vines, and choice and valuable plants which will be sold or not as the purchaser may choose. The Farm is under good cultivation and together with the Garden is stocked with the choicest Fruits, such as Apples, Pears, Peaches, Quinces, Plums, Strawberries of various kinds, Raspberries, Gooseberries, &c &c., which the present owner has spared no expence in obtaining. The Farm is bounded on the west by Concord River, which is well supplied with fish, and the country around abounds with game, making it a desirable retreat to the gentleman who is fond of fishing or shooting.

Possession will be given on the 1st April next—for terms, which will be liberal, apply to the subscriber in Boston or at the Farm. JAMES VILA.

BOUND VOLUMES OF THE SILK MANUAL.

For sale at the Agricultural Warehouse and New England Seed store, the first volume of the Silk Manual and Practical Farmer, neatly bound. Price 62½ cents.

The book contains 192 pages, and a great amount of valuable information on the subject of Silk Culture. It is decidedly the cheapest book, extant, that treats upon that subject. May 4.

SPLENDID DAHLIA ROOTS.

Just received from the Lancaster Gardens, a fine assortment of splendid Dahlia Roots. For sale at the New England Seed Store.

Seeds for 1836.

FOR sale at the Seed Store connected with the N. E. Farmer Office

200 bushels	finest Early Peas ;
200 "	Large Marrowfat do ;
50 "	Dwarf Blue Imperial do. ;
50 "	other varieties ;
100 "	Best Garden Beans ;
" "	Dwarf and Pole, Early and Late, do ;
100 lbs.	superior Long Blood Beet Seed ;
500 "	Early Turnip " " " "
300 "	Cabbage Seed, 14 different kinds ;
250 "	Fine Long Orange Carrot ;
50 "	Early Horn, do. ;
200 "	Common Cucumber ;
150 "	Long Green, do. ;
100 "	Early and Head Lettuces ;
50 "	Pure White Portugal Onion ;
500 "	Silver Skin " "
1000 "	Large Deep Red, " "
200 "	Large Dutch Parsnip ;
150 "	Early Scarlet Short Top Radish ;
100 "	Long Salmon ;
50 "	Turnip Radishes ;
50 "	Spinach ;
100 "	Early Scollop Squash ;
100 "	" " Long " "
100 "	Long Winter, do ;
25 "	Salsafy ;
100 "	Early White Dutch Turnip ;
500 "	English " "
200 "	Ruta Baga,
200 "	Mangel Wurtzel, for Cattle.

Also—Cauliflower; Broccoli; Celery; Cress; Egg Plants Leek; Endive; Musk and Water Melons; Martynia; Pepper; Parsley and Tomato Seeds by the lb. or oz. *Herb Seeds*, of all kinds.

50,000 Papers in 200 to 300 splendid kinds of *Annual, Biennial and Perennial FLOWER SEEDS.*

GRASS SEEDS, Wholesale & Retail.

The above comprises in part the stock of seeds raised expressly for the establishment, and the quality and goodness will be warranted superior to any ever offered heretofore.

Boxes of Garden Seeds for the country trade, neatly papered up, with directions on each paper, for sale at a large discount from Market prices.

FRUIT & ORNAMENTAL TREES, &c. will be supplied, and orders are solicited.

GEO. C. BARRETT, *Agricultural Warehouse.*

SILK COCOONS.

The highest market prices will be paid for any quantity of Silk Cocoons. Apply at the New England Seed Store, Nos. 51 and 52, North Market street.

May 25. tf

Subscriptions and payments to the Silk Manual will be received by the following named

AGENTS.

- New York—G. C. THORBURN, 11 John-street.
- Albany—WM. THORBURN, 347 Market-street.
- Philadelphia—D. & C. LANDBETH, 35 Chestnut-street.
- Baltimore—Publisher of American Farmer.
- Cincinnati—S. C. PARKHURST, 23 Lower Market-street.
- Flushing, N. Y.—WM. PRINCE & SONS, Prop. Lin. Bot. Gar.
- Middlebury, Vt.—WIGHT CHAPMAN, Merchant.
- West Bradford, Mass.—HALE & CO. Booksellers.
- Taunton, Mass.—SAM'L O. DUNBAR, Bookseller.
- Hartford—GOODWIN & CO. Booksellers.
- Newburyport—ERENEZER FREDMAN, Bookseller.
- Portsmouth, N. H.—JOHN W. FOSTER, Bookseller.
- Woodstock, Vt.—J. A. PRATT.
- Bangor, Me.—WM. MANN, Druggist.
- Hatifax, N. S.—E. BROWN, Esq.
- St. Louis—GEO. HOLTON, and WILLIS & STEVENS.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES, Russetts and Baldwins.	barrel	1 50	2 25
BEANS, white,	bushel	2 00	2 50
BEEF, mess.	barrel	12 75	13 00
Cargo, No. 1.	"	10 00	10 37
prime,	"	8 00	8 50
BEESWAX, (American)	pound	27	29
BUTTER store, No. 1	"	20	22
CHEESE, new milk,	"	10	12
FEATHERS, northern, geese,	"	55	60
southern, geese,	"	50	58
FLAX, American,	"	9	10
FISH, Cod,	quintal	3 12	3 37
FLOUR, Genesee, cash	barrel	6 62	7 09
Baltimore, Howard street,	"	7 12	7 26
Baltimore, wharf,	"	7 62	7 75
Alexandria,	"	7 09	
GRAIN, Corn, northern yellow none.	bushel	92	94
southern flat yellow	"	84	86
white,	"	81	83
Rye, northern,	"	95	98
Barley,	"	90	1 00
Oats, northern, . . (prime)	"	56	67
HAY, best English, per ton of 2000 lbs		25 00	30 00
eastern screwed,	"	25 00	27 00
hard pressed,	"	24 00	27 00
HONEY,	gallon		
HOPS, 1st quality	pound	13	14
2d quality	"	11	12
LARD, Boston, 1st sort,	"	16	16
southern, 1st sort,	"	16	16
LEATHER, slaughter, sole,	"	19	20
do. upper,	"	12	14
dry hide, sole,	"	19	21
do. upper,	"	18	20
Philadelphia, sole,	"	27	29
Baltimore, sole,	"	25	27
LIME, best sort,	cask	1 14	1 17
PLASTER PARIS, per ton of 2200 lbs.		2 50	3 00
PORK, Mass. inspect. extra clear,	barrel	25 50	26 50
Navy, mess.	"		
bone, middlings, scarce,	"		
SEEDS, Herd's Grass,	bushel	2 75	3 60
Red Top,	"	50	60
Red Clover, northern	pound	12	13
SILK COCOONS, (American)	bushel	3 60	9 60
TALLOW, tried,	cwt.	8 50	9 00
Wool, prime, or Saxony Fleeces,	pound	65	75
American, full blood, washed,	"	55	65
do. 3-4ths do.	"	55	58
do. 1-2 do.	"		50
do. 1-4 and common	"	40	45
Native washed	"	38	60
{ Pulled superfine,	"	58	60
{ 1st Lambs,	"	50	53
{ 2d do.	"	40	41
{ 3d do.	"	30	35
{ 1st Spinning,	"	48	50
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	14	16
southern, and western,	"	13	13
PORK, whole hogs,	"	10	10
POULTRY,	"	12	15
BUTTER, (tub)	"	20	25
lump	"	22	27
EGGS,	dozen	15	16
POTATOES,	bushel	45	50
CIDER,	barrel	2 50	2 75

FESSENDEN'S

SILK MANUAL

AND

PRACTICAL FARMER

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. II.

BOSTON JUNE, 1836.

NO. 2.

PUBLISHED MONTHLY BY
GEORGE C. BARRETT,

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T. G. FESSENDEN, EDITOR.

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all subscribers.

BOSTON, JUNE, 1836.

SILK GROWING ESTABLISHMENT.

Estimate of the expenses and proceeds of a silk growing establishment, for seven years, commencing with only two hundred young trees or cuttings of the Chinese mulberry; chiefly intended to show that it may be successfully commenced and pursued without capital.

If there is a person in the world whose mind has not been warped and biased by the influence of hereditary prejudices and fashionable opinions; should that person be asked what human being is entitled to the highest veneration and esteem of his fellow beings, he would answer, the person who should devise the means to produce the greater quantity of the most palatable and nutritious food for his fellow creatures, at the least expense. Should he be farther asked, who is entitled to the next rank in public esteem, his answer would be, he whose talents produces the same effect with respect to clothing. In other words, the most exalted rank belongs to the best agriculturist: and the next to him, whose inventive genius has effected the greatest improvement in the quantity and quality of clothing at the least or a given price.

How enviable, then must be the situation of that person, in whom is united both these titles,

and whose employment is, at the same time, as lucrative, as healthful, and as pleasing as it is useful to mankind.

Such an employment, with such advantages, and if well conducted, certainly and clearly entitled to such honor and respect, is now fairly presented to the people of the United States in the business of cultivating silk; and experiments have fairly shown that there is no deception in the offer, but that it may be entered into without any hazard or chance of failure. It embraces all the charms of rural husbandry, with as little of the hard labor, as is consistent with bodily health and vigor. Its agricultural department is calculated to furnish healthful and pleasant labor, and consequently, food to the indigent without servile degradation, and it furnishes the richest and most elegant clothing that man or woman ever put on; and when fairly introduced, under the advantages which this country offers, its price will never be beyond the reach of honest industry. And besides all this, the profits it will yield will be equal to, or greater than those of any other branch of agriculture or manufacture. Who, then, would not be a silk grower,—especially when the means of engaging in it are within the reach of every one possessed of common mental and corporeal faculties, who has credit sufficient to hire an acre of ground, and that even of almost the poorest quality?

The ultimate success and perfect adaptation of the Chinese mulberry to every part of this country, are now established by reports of experiments which cannot be doubted, from every quarter. It is now ascertained beyond the need of farther investigation, that it is as hardy to endure the winter's frost as the white mulberry, or almost any other fruit tree. It is ascertained that the best ground to appropriate to it, is such sandy or gravelly and hilly ground as is of little value for most

other uses,—that if seed cannot be obtained, it may be propagated equally well from cuttings, or pieces of twigs, or young branches, a few inches long, with one end stuck into the ground.

There is no industrious man in the United States, with a family and in health, who cannot hire, if he cannot buy, an acre of ground for a nursery: and having bought it he can, by exchanging work with some farmer, cause it, or a part of it, to be ploughed. If he is unable to buy young Chinese mulberry trees, and cannot procure the seed, which may for a short time to come, be rather difficult, he can easily by a little energetic perseverance, procure two hundred cuttings, probably without paying any thing, or at most but very little. Let him commence with these, and at lowest calculation, which is perhaps more than three quarters below the truth, they will produce him a thousand the second year, and may be multiplied, from year to year, not only in the same, but in an increased ratio, as those first set out increase in size.

I will endeavor to show what may be effected by perseverance in a systematic plan, which is the only mode of proceeding with any certainty of success. I shall limit the calculation to seven years, which will be a fair beginning; after which, any one with the experience of that time, will be able to make calculations for the future. I shall set down each item in the calculation far below, and in some instances, three hundred per cent. below what fair experiments have shown may be relied on.

As it is important, at the commencement, to multiply the trees as fast as possible, I would advise to begin with about an acre of mellow, rich soil, sandy loam, which though not so good for the ultimate production of silk, is more conducive to the rapid growth of the young trees before transplanting, and is therefore best for the nursery. In this nursery, I would set the seedlings, cuttings, or other young trees, as near together as they can have room to grow the first year.

The first year, 200 cuttings, set in the spring, will afford leaves sufficient to feed about 500 worms. This number would be of no profitable use in yielding silk; but it will be well to keep them, in order to form some acquaintance with them, and to provide eggs for the next year.

The moths produced by the 500 worms, will probably be half females, and will produce about 100,000 eggs; about 15,000 of which will be wanted for the next season. Suppose 50,000 of them should be sold at 12 1-2 cents, which is one half their present price, the account for this year may stand thus:

Rent for acre, for nursery,	\$5
200 cuttings, say,	2
Trouble of collecting, setting, &c.,	2

Feeding 500 worms,	\$2
	<hr/>
	\$11
50,000 eggs sold, at 12 1-2 cts. per 1000,	6
	<hr/>
Nett expense out, first year,	\$4 75

SECOND YEAR.

This year, also, but little or no profit can be expected. Allowing only five cuttings or layers from each tree, which is not probably not more than one fourth of what may be produced, there will be 200 trees of last year, and one thousand propagated this year. These will afford leaves sufficient for 15,000 worms, which, besides producing eggs for next year, would yield, perhaps, a little over six pounds of silk, which, at \$5 per pound, will bring \$30.

The expenses and proceeds of this year may be estimated thus:

Rent of nursery,	\$5
Propagating by cuttings or layers, 1000 trees,	6
Feeding 15,000 worms,	10
Reeling 6 lbs. silk,	4 50
	<hr/>
	\$25 50
Six pounds silk, at \$5 per pound,	30 00
	<hr/>
Nett gain second year,	\$4 50

THIRD YEAR.

This year also, will afford but small profit. All the increase of the trees may still be retained in the nursery. From each of those set the spring before, ten at least may be taken.

For the spring of the third year, there will be 200 trees two years old, and 1000 of one year old. From each of the first, may be propagated ten, and five from each of the others, making of this year's propagation, 7000; in the whole, 8,200. If from each of the first trees, two pounds of leaves are taken, and one pound from each of the next, and 1000 pounds from the 7000 young plants, making in all 1900 pounds of leaves, these together will feed 50,000 worms, which will make twenty pounds of silk.

Statement for the third year,	
Rent,	\$5
Setting 7000 trees,	21
Feeding and care of 50,000 worms,	25
Reeling 20 pounds silk,	15
	<hr/>
	\$66
20 pounds silk, at \$5 per pound,	\$100
	<hr/>
Nett gain third year	\$34

FOURTH YEAR.

Proceeding in the same ratio for four years yet

to come, allowing each tree set the year before, by cuttings or layers, to produce five, and each over that age, ten, which is infinitely short of what can be effected, then the number of trees for the fourth year will be 55,200, the fifth year, 372,200, the sixth year, 2,500,200, and the seventh year, 15,872,200.

But as these last numbers outstrip all practical calculations within the bounds of reason, we will therefore go back to the beginning of the fourth year, which commences with 8,200 trees.

As this number will extend beyond the convenient limits of the nursery, of course it will begin transplanting the trees to the place of their destination. To effect this, I would advise to hire a piece of ground on a permanent lease, say twenty acres, and more if can be done conveniently, with the privilege of purchasing in three years.

I would prepare a part of this field, and transplant the 1,200 trees of one and two years old. These I would set in rows eight feet and six inches apart, and the trees in the row, a little short of twenty inches, or ten trees in a rod, by which arrangement an acre will contain 3,200 trees. The whole field ought to be well fenced, or at any rate, the trees protected from every kind of depredation. The trees three years old may be calculated to yield three pounds of leaves each; those of two years one and a half pounds; and those of one year half a pound; in all, 4,600 pounds without those set this year. These will feed 120,000 worms, which will yield fifty pounds of silk, which at \$5 per pound, will amount to \$250.

The expenses and avails this year may be set down thus:

Rent of nursery,	\$5
Rent of field, twenty acres, at \$2 per acre,	40
Transplanting 1,200 trees, preparing ground, &c.,	12
Attendance of worms, and reeling 50 pounds silk,	100
	<hr/>
	\$157
50 pounds of silk, at \$5 per pound,	250
	<hr/>
Nett gain fourth year,	\$90

FIFTH YEAR.

The fifth year there will be 7000 trees two years old, and of course, ready for transplanting, which, with the 1,200 already transplanted, making 8,200, will occupy a little more than two and a half acres. These, with those one year old, will produce leaves enough to feed something over a million of worms, from which may be calculated on 416 pounds of silk.

Rent of nursery and field,	\$42 50
Transplanting 7,000 trees,	35

Feeding and care of 1,000,000 worms	250
Reeling 416 pounds silk,	312
	<hr/>
	\$631 50
416 pounds silk, at \$5 per pound	2080
	<hr/>
Nett proceeds fifth year,	\$1441 50

SIXTH YEAR.

It will be perceived that, as at the ratio at which we proceeded thus far in propagating, there will be this year untransplanted 47,000 trees of one year's growth, and 317,000 set this year; in all 364,000. These could not have room to stand in the original acre of nursery; I shall therefore suppose that the cultivator has, this year, either enriched and prepared a part of the twenty acres, in order to enlarge the nursery, or has procured a sufficient quantity of suitable ground elsewhere, in which case the yet unoccupied portion of the twenty acres may be considered an equivalent, and the rent, therefore, need not come into the account.

The sixth year will commence by transplanting the 47,000 trees two years old this spring, which with those transplanted before, will make 55,200, leaving space in the twenty acres for 8,800 more. There will then be for this year's feeding 200 trees of five years, 1,000 four years, 7,000 of three years, and 47,000 of two years. These will produce at least sixty thousand pounds of leaves, which, with what may be gathered from two hundred and twentythree thousand of one year old, will amount to one hundred thousand pounds, which will feed, at a reduced calculation, two million five hundred thousand worms, which number will make ten hundred and forty one pounds of silk, worth \$5265.

Rent,	\$42 50
Transplanting 47,000	235
Feeding and care of 2,500,000 worms	300
Reeling 1041 pounds silk,	520 50
Interest of cocoonery supposed to have been built last year,	210
	<hr/>
	\$1308
1041 pounds silk, at \$5 per pound	5205
	<hr/>
Nett gain sixth year,	\$3897

SEVENTH YEAR.

At the season of the commencing this spring, the silk made the year before will have been sold, and after paying all expenses of the season, will have left a net gain of above three thousand dollars; and as there will be three hundred and seventeen thousand trees of two years old, if one half of them are sold at two cents each, (the purchaser being at the expense of removing them,) which

would now readily command six or eight times that price, they will amount to \$3,170. By these means, there will be sufficient funds on hand to pay for the twenty acres of land, which, at thirty dollars per acre, will amount to six hundred dollars, and three thousand dollars for a cocoonery, which I shall suppose to have been built on credit the year before, together with two hundred and ten dollars interest; still leaving a balance of perhaps over two thousand dollars. I shall also suppose that in the course of the fifth season the cultivator has made a purchase of two hundred acres of land, which, if the business has been well conducted thus far, can easily be done on a credit, to pay by instalments of one thousand dollars each, beginning after two years and which at thirty dollars per acre, will require six instalments. If this is done, he will now be able, from the remaining avails of last season, to pay the first instalment with the interest due.

MANAGEMENT OF HORSES.

The feeding of horses is a thing which for the most part is indifferently attended to in this country, and indeed the *system of feeding* which has been adopted, is but ill calculated to preserve these noble animals in full health and unimpaired in strength and vigor of body. With many planters and farmers, nothing but corn and oats, in the whole grain are doled out from one end of the year to the other. Now these are each highly nutritious and excellent substances, and well calculated to sustain horses under long continued and laborious work, but then are they not too both too heating to the blood, and too difficult of digestion to be given without change during the whole year? Would it not be better, putting the saving out of question, to reduce those grains to something like digestible substances. Whether the horse be fed upon corn or oats, in the whole grain, they necessarily void a large portion of them in precisely the same state in which they are received into his stomach. This fact is too well established to be denied at this late day, and hence it follows that all portions of grains which are eaten by the horse and not digested, serve but to irritate the coat of his stomach, inflame his blood, and, by necessary consequences, disease the whole system. The health of a man's family is very properly said to be dependent as much upon his cook as upon any other earthly agent, whether referable to physical or atmospheric causes. Writers upon human health invariably recommend plainness of diet, moderation of eating, exercise, and general temperance, and the substances which are most earnestly commended to favor, are those which afford the most bland nutrition, and which are easiest of conversion into chyle. If these recommendations hold good with respect to human

diet, we would ask are not the same general laws of nature applicable to the horse? If man lives luxuriantly and feeds upon high seasoned and luscious food, the chances are as ten to one against him that he will get the gout, or some inflammatory disease; and if he feeds upon substances difficult of digestion, he is just as sure to be visited with that worse than pestilent distemper—the dyspepsia. Ah! but would you compare the horse to man? we think we hear some one ask; and lest our motives may be mistaken, we will take the liberty of replying to the query in advance of its being solemnly put on us. We do not compare the horse to the man, but we hold it as of a truth which admits not of contradiction—that all the alimentary substances, to be profitable to the stomach of either man or horse, should be not only nutritious and bland, but should be eaten in that state in which it is best calculated to undergo the digestive process. Mastication does much to prepare the food of the horse for that operation; but the evidences which are afforded by the substances voided by this animal, incontestably show that it fails most lamentably in the performance of this highly necessary work. In England where the management of stock generally, and particularly of the horse, is reduced to a matter of science, but few intelligent feeders think of giving food to that animal in an uncrushed state; nor do they confine them to grain feeding alone, and for the assigned reason, that it is too *heating*. Potatoes and ruta baga form a part of the feed of studs of most English country gentlemen; by which means they keep their horses in better health; the occasional feeding with roots serving to open their bowels, cool their blood, determine the secretions to the surface, render the skin loose, and the hair silky and healthy. We have said that independently of the saving which is thus effected, the other reasons are sufficient to justify a resort to practice, and we would ask are not the melioration with the animal to which we have just alluded, sufficient of itself, to make it an object worthy of every consideration? We think it is, and should be rejoiced to find that our suggestions were improved upon by American horse owners, for we honestly believe that infinite good both to the master and beast would inevitably result from it.—*Farmer and Gardener.*

A chemist of the city of Durham has lately discovered by accident, that the sting (venom) of a wasp or bee is an acid which will yield to an application of powerful alkali.

Col. Rees, of Florida, owner of a plantation which was devastated by the Indians, is said to have lost \$140,000—being the greatest loss sustained by any individual in the Territory.

LIME FOR MANURE.

The following is extracted from a Report of the Trustees of the Kennebec Agricultural Society.

To render our farms highly productive, we must cease to look to barn-yards for the only means of enriching them. The application of alkalis—turning in green crops, and collecting composts, must be resorted to. The recent discovery of lime, in different sections of the country, promises well for agriculture, as it is almost indispensable in raising certain crops, and valuable in any. There has been but little experience in this country in the application of lime in husbandry. In other countries it is used as a manure, both in its caustic or hot state, and in a mild state. When a sward or other substance is to be decomposed, it is applied in its caustic state. When this is not the object, it may be used in either state. If used upon plants, it must be in a mild state. It has been doubted whether lime operates as a stimulus, alterative, or food for the plant, but we think that it acts as a neutralizer of all acids, and as an alterative. Heavy liming has been tried on cold clay soils, and peats, with perfect success. In some cases 240 bushels to the acre have been used. It will be seen that this will not answer for us, unless situated in a lime district, where the refuse of the kilns can be obtained at low rates. But at the present prices every farmer should use it or a substitute; ashes as a top dressing on all his lands that do not contain calcareous matter. The sward of rich places by the road side thrown up, and lime mixed in, makes an excellent dressing for a wheat crop; if caustic when put in the stack, it will soon be mild and fit to apply to young plants. Lime is used with most beneficial effects on land abounding in copperas rock, and when applied it renders it the most productive and desirable soil. Our remarks have been confined to what is called the carbonate of lime, but when quick lime is mixed with sulphuric acid, even where the base was before, iron, it partakes of the nature of plaster of paris. Plaster is sulphuric acid with lime. Copperas is sulphuric acid with iron. Plaster, which belongs to the family of lime, is a very good and cheap dressing for most land, and is indispensable to a crop of clover, which when analyzed is found to be composed in part of plaster; but we believe a cheaper and better manure may be formed of lime mixed with other substances, and we would recommend the use of it on all unproductive land as an alterative; on all wheat land as the food of wheat; for unless it is contained in the soil, or is supplied, no wheat can be raised. We have so much and so good evidence of the beneficial effects of lime in husbandry, that we hope every farmer will avail himself of the present low price of it to try experiments for himself. It is used with the best

effects in England, Scotland, and in some parts of the United States. In Pennsylvania, they give eighteen cents per bushel for an inferior kind of lime, and find it profitable manure.

Lime has been used by some of our farmers in raising potatoes. They find it beneficial, not only to the potato crop, but to the succeeding crops. Its effects are visible for several years. The manner of applying it is, to put a spoonful in a hill after the potatoes are dropped and cover the lime and potatoes together. Not only is the quantity of the crop increased, but the quality is improved by it.

Potatoes have become, to a considerable extent an article of export, and may be reckoned one of the most profitable crops on farms situated near navigable waters. The South will always depend on us for a supply, if we send them a good article. Should the state do any thing to facilitate transportation by canals or rail-roads, a general benefit will be felt among the farmers from the sale of this article.

They may be raised at a very cheap rate on stubble land. A little lime to assist in decomposing the stubble, is all the manure that is necessary to ensure a good crop, and, by planting in straight drills, most of the labor may be performed by a horse. Land may be well prepared in this manner for a second crop of wheat. The lime applied to the potatoes is sufficient for the wheat, without another application.

CHOOSING SHEEP FOR BREEDING,

One of the two species of sheep, the long and the short woolled, having been chosen as most appropriate to the situation, and wool being made an object, it is most advantageous to select such flocks as are pure as possible of the species to which they belong, and not a mixture of the short and long woolled breeds, which must generally produce an inferior fleece, disadvantageous to the manufacturer. Length of staple in the long, and fineness, elasticity and closeness in the short woolled fleece, will be the best guides in this case.

Whether the wool be long or short, the carcass of the animal ought to be amply and regularly covered; it is a great defect when the belly is bare, and still greater when the wool is thin and open along the ridge of the back, admitting rain and moisture to a most susceptible part, indeed, to descend upon all parts of the body.

It is a piece of good old advice, to buy your RAMS a little before shearing time, if possible; and a very necessary modern addition to take the opportunity of purchasing at the farmer's house, while you see the animal in *PURIS NATURALIBUS*, and before he has been decked out and trimmed

for show by the sheep barber. A thick fleece, covering all parts with as much equality as possible, containing plenty of yolk, or retained or inspissated perspiration, is the object. If ewes, equally well bred, can be procured, the shepherd anticipates and reaps an immediate benefit; if not, he must patiently await improvement of his wool, through the medium of the superior blood of his rams.

At shearing time, examine the bottoms of the fleece, or the lower extremity of the filaments of wool; if it be starchy-haired, of mixed quality, or if the sheep have a coarse breech, or be not well covered, it must be rejected, as improper for a breeding stock, where it would perpetuate its defects. The quantity of yolk or grease is a good proof of the thickness of the fleece, since, by the closeness and thickness of the wool, the grease or perspirable matter of the animal is retained; hence fine, closed, curled wool has ever the greatest quantity of yolk.—*Bath Memoirs.*

ENGLISH CULTIVATION.

I had heard and read much, before I went to England of the beauty of its scenery the perfection of its roads, and of the high state of cultivation which prevails through the country. But when I came to see those things with my own eyes, I found that my previous conceptions were extremely inadequate. I cannot do justice at all, to any of those objects which interested and delighted me so much the moment I saw them.—But imagine yourself safely landed as I was, at Liverpool in the month of April. You recollect that in New England, and even much farther south, winter still lingers—that the fields are brown, the trees leafless, and the roads bad. Not so in England.—You take the coach for London. As you go out of town you are very much surprised to see a deep June vegetation, especially when you recollect that you are in the fifty-fourth degree of north latitude, and you ascribe it to some peculiar advantage of soil, or early exposure. But as you are borne rapidly along, you find other fields still more verdant. The scene opens wider. Field beyond field, and lawn beyond lawn, rises in endless perspective. The farms are regularly laid out in squares and parallelograms, of from two to forty acres; and in general are laid down as smooth and level as the roller can make them. Here is a luxuriant wheat field, and there a meadow, and next a rich pasture, and there busy preparation for putting in potatoes or turnips; and there barley or oats just shooting up from the dark and rich soil. But scarcely a rod of fence such as we meet with every where in the United States of America, do you see in your two hundred miles ride from Liverpool to London. All is hawthorn; and these hedges, which are for the most

part kept neatly trimmed about the garden and farm houses, and by the road side, add more to the beauty of the country than any description had pictured upon my mind. The common method of making the hedge is this; first the ridge is thrown up, perhaps a foot above the level of the fields which are to be fenced in; when the young thorn is to be planted in two parallel rows, about a foot or eighteen inches apart. The growth is not very rapid; but when it has attained the height of four or five feet, in about as many years, it becomes so dense that no domestic animals would think of breaking through it. The leaf is small, deeply verdant, and beautifully serrated.—In the month of May these hedges are clothed with a white fragrant blossom, very much resembling that of the thorn of our own country; and it is then that the honey suckle and other wild flowers enfold their bright hues and mingle their sweetness with the hawthorn. In the hedges, trees, such as the oak, the elm, and the horse chesnut, are planted, sometimes in rows, near together, but oftener far apart, so that each one rises and waves in grandeur by itself over the humbler, but not less charming growth below. Single trees very large are sprinkled here and there in every direction, and, every now and then you catch a glimpse in the distance, of a grove or circular clump, which add not a little to the beauty of the landscape.

Let me not be understood as intending to confine my remarks to the country between Liverpool and London, as if they were richer or more highly cultivated than other parts through which I afterwards travelled, for, in truth it is less so. With the exception of the downs, and here and there a heath, what I saw of the English scenery, taken altogether, very much surpasses my expectations—not in boldness, not in grandeur—but in richness and beauty. It seemed to me as I passed rapidly along, from town to town, and from city to city, more like one interminable series of gardens and pleasure grounds, than any thing else to which I could compare it. In addition to what I have already mentioned, the turreted castles and halls of the nobility and gentry; their immense parks and princely domains, sometimes embracing several miles square of fine territory, and enclosing gardens, lawns, and forests, adorned with avenues, and fishponds, and streams. All these and many other features of the island, serve to increase your admiration of what nature and taste have done for our father land.—*Dr. Humphrey's Tour.*

Agriculture aided by science, will make a little nation a great one.

All the energy of the hero, and all the science of the philosopher, may find scope in the cultivation of one farm.

SUCCESSION OF CROPS.

But however well adapted the soil and climate may be to the cultivation of any particular kind of vegetable, the former soon ceases to be productive if constantly appropriated to the culture of plants of the same or analogous species. In order that land may be cultivated successfully, various kinds of vegetables must be raised upon it in succession, and the rotation must be conducted with intelligence, that none unsuited either to the soil or climate may be introduced. It is the art of varying the crops upon the same soil, of causing different vegetables to succeed one another, and of understanding the effect of such upon the soil, that can alone establish that good order of succession which constitutes cropping.

A good system of cropping is, in my opinion, the best guarantee of success that the farmer can have; without this, all is vague, uncertain and hazardous. In order to establish this good system of cropping, a degree of knowledge is necessary, which unhappily is wanting to the greater part of our practical farmers. I shall here state certain facts and principles which may serve as guides in this important branch of agriculture.

Principle 1. All plants exhaust the soil.

Principle 2. All plants do not exhaust the soil equally.

Principle 3. Plants of different kinds do not exhaust a soil in the same manner.

Principle 4. All plants do not restore to the soil either the same quantity or the same quality of manure.

Principle 5. All plants do not foul the soil equally.

From the principles which I have just established, we may draw the following conclusions:

1st. That however well prepared a soil may be, it cannot nourish a long succession of crops without becoming exhausted.

2d. Each harvest impoverishes the soil to a certain extent, depending upon the degree of nourishment which it restores to the earth.

3d. The cultivation of spindle roots ought to succeed that of running and superficial roots.

4th. It is necessary to avoid returning too soon to the cultivation of the same or of analogous kinds of vegetables, in the same soil.

5th. It is very unwise to allow two kinds of plants, which admit of the ready growth of weeds among them to be raised in succession.

6th. Those plants that derive their principal support from the soil, should not be sown, excepting when the soil is sufficiently provided with manure.

7th. When the soil exhibits symptoms of exhaustion from successive harvests, the cultivation

of those plants that restore most to the soil, must be resorted to.

These principles are confirmed by experience; they form the basis of a system of agriculture rich in its products, but more rich in its economy, by the diminution of the usual quantity of labor and manure. All cultivators ought to be governed by them, but their application must be modified by the nature of soils, and climates, and the particular wants of each locality.—*Chaptal's Chemistry.*

LUNAR INFLUENCES.—A writer in the *New York Farmer* has the following remarks on the subject of the influence of the moon upon the weather.

In the course of my observation, I could not but refer at times to the remark of the Indians, the ancient inhabitants of the country of my youth, of which there were a number of them living, and that was, that after the changes of the moon, if the corners pointed up in the form of a dish, it would be dry weather that moon, but if one down and the other up, it would be rainy or wet. Although astronomical knowledge taught me that this was without foundation, still from repeated remarks, I was finally compelled to admit that there was some truth in the observation; and in process of time, was led to form the following conclusion: that is, when the moon changes in high north latitude, it is generally cold and dry; but if in extreme south latitude, warm and wet, and apt to be stormy. It may be remarked, that when the moon changes in high north latitude, it makes the figure of the corners pointing up, and in extreme south the other figure, which verifies, in a measure the truth of the old Indian's remark. Hence, although admitting that the sun and moon are the principal agents in governing the weather there seems to be other causes which at times vary their influence, so that it is still an uncertainty; but I have very rarely known it to fail that the moon in extreme south latitude, denotes warm and stormy weather, and in high north latitude, cold and dry; and if we have ever so great prospect of storms in the latter, they are apt to be of short duration. As my limits will not allow me to go farther into detail, it may suffice to remark, that if our almanack makers would give us the latitude of the moon at the full, change, and quarters, with the course she is going, whether north or south, we might foretell the weather for ourselves, or they might give it by their own judgment from the moon's latitude in probability.

A skilful agriculturist will constitute one of the mightiest bulwarks of which civil liberty can boast.

FRANCE is considered a silk growing country, yet she does not grow sufficient for her own manufactures, and it is said, annually imports raw Silk to the amount of \$6,000,000

England, owing to the humidity of her climate, cannot raise the worms to advantage, and for her numerous manufacturers is obliged annually to import the raw material from other countries to the amount of \$17,000,000. It is stated that we import annually of Raw Silk to the amount of about \$10,000,000 and of the manufactured over sixteen millions.

Unless the United States push the culture of the Mulberry and raising of Cocoons, beyond anything now in operation, many long years must intervene, before we can supply the demand of our own markets. Inhabiting as we do one of the best climates in the world for manufacturing silk of the best quality, instead of paying ten millions of dollars annually to other nations for the raw material, we ought to export two or three times that amount.

It is said our imports of Silk stuffs exceed our export of Bread stuffs — why is this? Only because we do not duly appreciate and improve the means we have. Let our intelligent Farmers be convinced that the silk business is profitable, and then we can hope that every exertion will be made to extend the cultivation of the mulberry and raising of Cocoons.

It is a matter of regret, that any one should view the subject as a wild project, and say, that although it may be a good business for a few years, if found lucrative, every body will engage in it, and glut and ruin the market. We wish the subject could be so presented to our fellow citizens, as to impress them with the importance of examining the subject, on the broad scale of greater national importance than any agricultural subject ever yet pursued.

But if doubts and fears shall remain, we only ask them to commence the culture of the mulberry on a limited scale for a few years, not to interfere with any other agricultural pursuit. Let the experiment be made upon some of our almost barren and useless portions of poor, dry, stony and gravelly soil.

It may be asked, if the silk business can be made more profitable than any crop, why not take the best and richest land? a fair question indeed, but such land is not best for the Chinese mulberry, and it would be desirable to have every patch of poor, waste, dry land devoted to some useful purpose.—*Northampton Cour.*

The population of Paris has quadrupled since the reign of Louis XIII. Land which was then worth 200 francs the acre, is now 1000 francs the yard.

(From the Silk Culturist.)

ROXBURY, March 5th, 1836.

MR COMSTOCK: — Understanding that communications directed to you, on the culture of silk, will be acceptable, I offer a statement of my short experience in the business, and should it prove that I have done anything to advance the cause, I shall be amply paid for my pains. I have 1500 trees, from two to six years old, in a healthy condition, and have fed a small number of worms for three seasons past; and, after having constructed a reel expressly for the purpose, have overcome, to us, the great difficulty of reeling the silk from the cocoons, and manufacturing it into sewing silk, to our great satisfaction.

The manner in which we manage is this. We reel from twelve to twenty cocoons at a time, and put five or six skeins on the reel at once, as required for the size of the thread—from ten to twenty knots to a skein. We then take the reel from the frame and place it in a jack, in order to double it without disturbing the skeins. We then take a common quill-wheel and spool, and secure the ends from five skeins, bringing them together into one. After wetting with suds, we proceed to spool, which, when done, it is ready for spinning, &c. I am satisfied we can make a run of sewing thread from the cocoons with about the same labor as from flax.

I also constructed a box stove of sheet iron, and another of boards sufficiently large, after putting the iron one into it, to leave a space each side and bottom, of about one inch—I then filled the space with clay mortar—being a non-conductor of heat, one could set by it in the warmest weather without inconvenience. The stove-pipe to pass through a window or chimney, as most convenient. I have also invented a spinning-jenny, for the purpose of spinning, doubling, and twisting under one operation, either by hand or any other power, which I calculate to put in operation next season.

I am, &c.

ISAAC G. BOTSFORD.

P. S. The inquiry has been made, what shall be done to prevent the silk worm from being destroyed by ants? Suspend the shelves from above with wires, so that they cannot come in contact with the walls of the building, and a sure remedy may be found.

I. G. B.

The last Albany Cultivator, says — “Mr Asa Carter, of Champion, Jefferson Co. has shown us a specimen of silk manufactured by his daughter, who never saw a silk worm, nor a silk reel until last summer. This is pretty good evidence that there is no great art or mystery in managing silk worms.”

Premiums offered by our Agricultural Society. Silk and Mulberry.—On the greatest number of acres set with White Mulberry Trees, regard being had to the average size, age, and height of the trees, the inferiority of the soil and cash value of the same, before the first day of October, 1836, \$15, 10, 5. On the greatest number of Chinese Mulberry, (*Morus Multicaulis*) which shall be raised from cuttings, layers, or seed, before the first day of October, 1836, 15, 10, 5. On the most extensive and best arranged orchard, of White Mulberry, for gathering and feeding Silk worms, the greatest number of worms fed thereon, and cocoons produced therefrom, the present year, 10, 7, 5. On the greatest quantity of Raw Silk made in 1836, 5, 4. On the greatest quantity of manufactured silk, made in 1836, 5, 4. On the greatest quantity of cocoons, by weight and measure, raised in 1836, 3, 2.

ON CROPS. To be awarded next March.—On the greatest quantity and weight and value of good clean Winter Wheat, from an acre of land, meaning the net value of the crop, after deducting every expense of cultivation, labor, manure, seed, and interest of the value of the land, estimating good clean wheat at 1.50 per bushel, 6, 5, 4. On the greatest quantity and weight and value of good clean Spring Wheat, from an acre of old land, deducting all expenses, estimating good spring wheat at 1.25 per bushel, 5, 4, 3. On the greatest quantity and weight and value of good Indian Corn, from an acre of old land, deducting all expenses, and estimating corn at 75 cts. per bushel, 7, 6, 5. On the greatest quantity and value of good Potatoes, for the table, from one fourth of an acre, deducting all expenses, estimating good potatoes at 35 cts. per bushel, 5. On the greatest quantity of good Wheat, raised on a farm within the limits of the society, in the year, 1836, being not less than 200 bushels, 10. On the greatest quantity of good Rye, being not less than 500 bushels, 10. On the greatest quantity of Indian Corn, being not less than 500 bushels, 10. On the greatest quantity, of Oats, being not less than 300 bushels, 10. On the greatest quantity of Beans, being not less than 100 bushels, 10. On the greatest quantity of Peas, being not less than 100 bushels, 10. On the greatest quantity of Clover seed, being not less than 25 bushels, 10. On the greatest quantity of Land reclaimed, and crops therefrom, accompanied with a written description of the management, condition, and worth of the land before and since reclaimed, 10.—*Northampton Cour.*

The *Morus Multicaulis*, (Chinese Mulberry) as sold in this town, is \$5 00 a paper. A paper contains seed enough for about two thousand plants, but it is hardly probable they will all vegetate. But supposing only half do, at a year's growth they are worth 25 cents each, and can be sold readily for that money. This, it will be seen, gives \$250 for what cost \$5 00. A letter to Dr. Stebbins from a gentleman in this state, says—"I have now from a paper of seed sold by you two years since, 350 thrifty trees, and have put out from the same, 1200 cuttings. I have sold about \$50 worth of cuttings, all from the seed of one paper." This paper cost at that time but fifty cents! Is not this conclusive demonstration?—*ib.*

Barley.—A subscriber informs us that from a suggestion made in this paper, that he was induced to wash his barley in lime water and roll it in plaster before sowing. His expectations was realized, his crop being larger than usual, and more free from smut than any he had ever seen before.—*Gen. Far.*

We are pleased to learn that quite a number of farmers throughout our country, are beginning to engage in the Silk Culture. Dr Stone of this town, has transplanted this Spring 1100 or 1200 Mulberry trees from two to three years old, some of them older. The field in which he has placed them, is of a light and stony soil, such as is said to produce leaves of the best quality. There is an abundance of this kind of soil in the country, particularly in the hill towns west of here. It is hardly fit for anything but Mulberry trees, but would undoubtedly prove more profitable than the most fertile meadow land, if applied to this purpose.—*Greenfield Gaz.*

Maple Sugar.—The Maple Sugar season is over for this year. Manufacturers have pulled out the sap spouts—plugged up their trees, and can now tell us to a fraction what their luck has been. The run was not so great, we believe, as it has been some years—although about as good as ordinary. Those who commenced early enough, procured their usual quantity of sugar. Mr Stebbins, of Conway, made from 1200 to 1400 lbs. Mr Randall, of Shelburne, informs us that he manufactured over 900 lbs. besides making upwards of a barrel of molasses. Mr Spaulding, and Mr Ripley, of Montague, made upwards of 800 lbs. each. As yet, we have heard of no heavier producers about here than the above mentioned. The sugar is rather higher than usual this year. It sells from 12 to 16 cents. Maple molasses has been sold here at \$1.00 per gallon. It is *sans pareil* for puddings, &c.—*Greenfield Gaz.*

The Hartford Silk Factory flourishes. There are about 100 looms, 60 of which are occupied by pretty Yankee girls. The labor is light, the profits of the company great, and the fair hand maiden cheerful and contented. Success to the American silk manufactories.—*Conn. Aurora.*

A new method of manufacturing flutes has been invented by a Mr Catlin. Those made of wood are liable to be split. Mr Catlin avoids this defect by the following expedient: He wraps muslin and silk, coated with varnish, so tight as to become solid as wood, around an instrument of suitable size for the bore. This being withdrawn leaves the internal hollow perfectly smooth and polished. Clarionets and other instruments may be manufactured in the same way. The tone of the instrument is said to be excellent.—*Old Colony Whig.*

A French scientific journal certifies to the efficacy of common salt in fixing white wash made of lime. The water in which the lime is slacked, should be first saturated with salt.

ON THE UTILITY AND BEST METHOD OF COOKING FOOD FOR DOMESTIC ANIMALS.—This subject has engaged the attention of the practical men in Europe and in this country for many years, and it is a branch of rural economy at all times worthy the careful investigation of the farmer. The Highland Society of Scotland have, in a manner, directed the public attention to the comparative advantages of farm-stock with prepared or unprepared food, and have, by liberal premiums, induced numerous experiments to be actually made, and elicited much valuable information. The conclusions which have been drawn from these and other experiments seem to be,—

1. That a great saving, some say one half or more, is effected by cutting the dry fodder for horses and neat cattle, and feeding it with their provender or grain, in two or three daily messes, in mangers. Not that the food is thereby enhanced in its inherent properties but that given in this way it all tells — is all consumed, all digested, all converted into nutriment. There is comparatively none wasted, or voided, without having benefited the animal. In the ordinary mode of feeding in racks, yards, and in open fields at stacks, it is well known much is lost, from the difficulty of masticating mment hay-straw and stalks, and from its being trodden under the feet of animals and spoilt. Much labor is besides saved to the animal, as cut food requires less mastication, and the animal enjoys a long period of rest.

2. That grain and pulse, as cattle food, is enhanced in value by being ground or bruised before it is fed out, so much as to warrant the expense of sending it to mill, and the deduction of toil. Indian corn, oats, rye, and other grain, given to farm animals in a dry, unbroken state, it must have been observed by every one, particularly when the animal is high fed, are often voided in a half or wholly undigested state, and virtually lost. This does not happen when the grain has been ground.

3. That although roots, as ruta бага, mangel wurtzel and potatoes, are improved as fattening materials for neat cattle, by cooking, the advantages hardly counterbalance the extra expense of labor and fuel.

4. That for working horses, cooking the roots we have enumerated, and feeding them with cut hay and straw, is of manifest advantage; and that thus fed they supersede the necessity of grain.

5. That in fattening hogs, there is decided economy in grinding and cooking food. The experiments upon this subject are many and conclusive. Some estimate the saving at one half the quantity of food.— Taking into account the various materials on a farm, which may thus be turned to account, we are satisfied that one-half the

cost of making pork may in this way be saved. Swine are voracious animals, and will eat more than their stomachs can digest, unless assisted by the cooking process. There are upon the farm many refuse matters, as pumpkins, squashes, small potatoes, early and defective apples and apple pomace, which are of little value, except as hog-food, but which if well husbanded, cooked and mixed with ground provender, contribute essentially to cheapen our pork. It has been questioned whether the articles we have enumerated are nutritive to pigs, when given in their raw state; while all admit, who have made the experiment, that they are highly so when cooked. Cooking undoubtedly adds to their nutritive properties, as it does to the nutritive properties of Indian meal.—*Albany Cultivator*.

President Dwight mentions that when he lived on Greenfield Hill, he often noticed that delicate plants which were protected by a fence from the north wind, were cut off by spring frosts, while those which were more exposed were uninjured. It was observed after the frost last week, that some plants which were open to the north were saved, though the mercury was at 26 above zero.

His explanations was that the north wind drives the moisture from the plant and thus prevents it from being frozen upon it — so it would seem that in the case of what are called black as well as white frosts, it is not the juice of the plant which is frozen, but the external moisture.

Perhaps if observers compared notes on this subject something more might be known. It is desirable to get all information on a point so interesting to cultivators of gardens and orchards — for fruit is affected in a similar way.—*Springfield*

FARMERS OF VERMONT.—Some of the best and most productive farms in the country may be found in the valley of the Connecticut. Their produce in the market always commands a high price. The amount of butter, beef, and pork, sold since the first of October last, by farmers of the single town of Barnet, Caledonia county, Vt. brought the snug sum of \$26,340 88. During the four months mentioned, they sold 349 head of beef cattle for \$5,745; 68,147 lbs of butter for \$12,876-12, and 123,525 lbs. of pork for \$7,719. One farmer sold three thousand pounds of butter and the same of pork—1,600 lbs. of butter sold at an average of 20 cts per pound. The butter that was sold in Barnet in the month of October, averaged about a shilling per pound, while that carried to the Boston market, brought, during the same time from 22 to 26 cents—which one would think ought to pay handsomely for the cost of transportation. Another of the Barnet farmers sold 836 lbs. of butter, amounting to over two hundred and fiftysix dollars. Truly the Barnet Farmers have been living in fine clover during the past season. Several of them carried off premiums offered for the best butter by the Massachusetts Agricultural Society at their last exhibition—and one of them, the first premium of fifty dollars. We gathered these facts from a statement in the last number of the Vermont Farmer.—*Eagle*.

LAMBS.

Lambs should always be left at home when heep are to be washed, as they are saved much atigue where the distance is considerable, and many accidents incident to the pen, crowded as they are at such times; besides the advantage of having the sheep go directly home without any trouble, after washing. Ticks are very injurious to sheep of all ages, but more so to lambs, as they have the trouble of them in summer; the ticks leaving the old worms for a more secure retreat on the lambs. To destroy ticks, I take 10 or 12 lbs. of tobacco stalks for one hundred lambs, (which I buy of the tobaccoist for as many pence,) and at the time I shear sheep, put it into a tub sufficiently large to dip them in, and fill it with water, and let it soak six or eight days, when I get up my lambs, mark, dock, and alter them, then dip them into the tobacco juice; this not only kills the ticks, but is serviceable to the wounds made by docking and altering, and is all the remedy I ever apply to such wounds. Dipping the lambs in that way two successive years, will destroy all the ticks in the flock.

The method of docking lambs by taking hold of the tail and cutting it off while the animal is struggling to escape is very cruel, as it leaves the bone longer than the skin, which not only makes it very sore, but induces the flies to work at it, which endangers the life of the lamb. My method is, to have a man take up the lamb, and place the tail bottom upwards on the square edge of a block; then with a large knife, I crowd the skin which is loose up to the body, and strike the knife with a hammer, which leaves nothing to impede the shears, more than cording, and is attended with less trouble. Lambs that have much wool on them, should be sheared about the pouch to prevent the blood and wool from becoming so hard as to obstruct the discharge of matter from the wound. Lambs should be weaned the last of August, and have a good chance for feed till November; then oats in the bundle two or three months as their condition may require.—*Vermont Chronicle*.

The following extract is from the 126th chapter of the revised Statutes:

“Every person who shall wilfully cut down or destroy, or shall otherwise injure any fruit-tree or other tree not his own, standing or growing for shade, ornament or other useful purpose, shall be punished by imprisonment in the county jail not exceeding one year, or by fine not exceeding one hundred dollars.”

The small Birds are dying by hundreds for want of food. The insects upon which they feed, this cold weather, wont come out to be eaten.—*Northampton Cour.*

EXTRACT

From a report of the Trustees of the Kennebec co. Maine, Agricultural Society.

Wheat raising is an important business of the farmer. Much has been said and written on the subject, and without fear of saying or doing too much, we venture to say more; nothing at this time, more than to lay down some rules which one of your Trustees who has much practicable knowledge on this subject thinks important in the wheat raising business.

1st. Select good sound fully ripened seed.

2d. Mix as many kinds as will ripen together if you can get them.

3d. Exchange seed when you can get better than your own.

4th. Take seed from poorer rather than richer soil than it is to be sown upon.

5th. Wash the seed clean in cold water and scald it in hot ley, or lime it fiftyfour hours before sowing, mixing in plaster enough to render it easily sown.

6th. Sow at the rate of two bushels to the acre, two and a half is better.

7th. Sow at a proper season, that is, when your land is in proper order.

8th. At a proper time top-dress with ashes, mild lime or plaster, and if the growth be too rapid sow on salt.

We infer from the sacred writings that salt was anciently used in husbandry, and if it was good 1800 years ago, why is not now? The use of it seems to be nearly lost, but by attention to its peculiar properties it will appear that it may be applied in some cases with profit. Salt prevents putrefaction. On sandy land that has been highly manured for corn or potatoes, and is intended for small grain the following year, salt may be used with good effect. It will retard putrefaction or the rotting and evaporating process which is too rapid in such case, prevents the loss of manure and be beneficial to crops by preventing a too rapid growth.—*Maine Far.*

CORN does not come up well this year in our vicinity. Many farmers have been obliged to plant their fields a second time. The crop did not ripen well last fall, and the vegetating principle was injured in the crib by heating after it was gathered. Probably much of the seed was selected from the corn that had been thus hurt. The true way is to gather the choicest ears for seed in the field before the crop is harvested, and hang them up by themselves. We know some fields planted this Spring from seed thus selected that do not need a second planting.—Grass having lately enjoyed several days of rainy and cloudy weather has set quite thick.—*Hampshire Gazette.*

BEEET SUGAR.

The rapid increase of the culture of beets and manufacture of sugar therefrom, in France, ought to excite more inquiry in relation to the business than it does.

It seems by an article from the N. Y. Eve. Post, (published last week) that the beet sugar has nearly drove out of France the colonial sugar — that from 58 manufactories in 1828 they have increased to 400 in 1835 — and from five and a half millions of kilogram sugar, to thirtyfive millions in the same time. These facts come from the French minister, who says that he lost 17 millions of fr. (more than 5 1-4 million dollars) revenue in 1835 by the diminition of Imported Sugar, and proposes a tax on beet sugar, (to make good the deficiency,) of 7½ francs, (about a dollar and 41 cents) upon every 100 pounds. There is no better land in the world for the culture of the beet root, than the deep mellow soil on the banks of the Connecticut — the land that will raise the best broom corn will raise the best beets — to raise either in perfection a rich, light alluvial soil must be cultivated to let the roots and small fibres spread to the greatest width and penetrate to the greatest depth without obstruction — Will not our Hadley and Hatfield friends start in this business — they are always ahead of us in enterprize) and they will soon see the necessity of not depending wholly upon the broom corn crop — mulberry trees and the silk culture can be carried on any where, but the Connecticut Valley is the garden for Indian Corn and fat Cattle — for broom Corn as an auxiliary, and for the brush as an article of commerce — so let it be for the culture of the beet root as the greatest subsidiary to Indian corn in the fattening of cattle, and for the growth and manufacture of an article, second to none in commerce, save the staff of life itself.

We hope this subject will be taken up by the Farmers in Northampton, Hatfield and Hadley, and measures adopted to procure information in regard to the process of raising the beets and manufacturing the sugar in France; for that purpose we propose a meeting to be held in this town on the fourth day of July next, in the mean time, if a few people should get together in Hatfield and Hadley, and choose committees to attend a meeting in this town on the 4th July, that fact would be sufficient to insure a respectable meeting, the doings of which it is to be hoped would result in creating a new article of commerce from the Banks of the Connecticut.— *Hampshire Republican*.

No man who loves his family fails to take a newspaper, says a cotemporary. Very true; and no man who loves his character, fails to pay for it.

THE CORN CROP.— All, or nearly all, the accounts we have published, of great products of Indian corn, agree in two particulars, viz: in not using the plough in the after culture, and in not earthing, or but slightly, the hills. These results go to demonstrate, that the *entire* roots are essential to the vigor of the crop; and that roots to enable them to perform their functions as nature designed, must be near the surface. If the roots are severed with the plough, in dressing the crop, the plant is partially exhausted in throwing out a new set near the surface, where alone they can perform all their offices. There is another material advantage in this mode of cultivating the corn crop — it saves a vast deal of manual labor.

There is another question of interest to farmers, which relates to the mode of harvesting the crop, that is, whether it is best to top the stalks, cut the whole at the ground when the grain is glazed, or cut the whole when the grain has fully ripened. We have stated the experiments of Mr Clark, of Northampton, one of the best practical farmers of our country, and of other gentlemen, showing that the grain suffers a diminution of six or eight bushels to the acre, by topping the stalks; and there seems to be no counterbalancing benefit to the fodder, unless at the expense of carrying the stalks to the borders of the field, that they may be secured before the crop is gathered, and before they become blanched and half ruined. And it is no protection against early autumnal frosts, but rather exposes unripened grain to be more injured. Hence so far as regards these two modes, all who have made a comparison, seem to concur in the opinion, that stripping the corn of its tops and leaves is a bad practice.— *Albany Cultivator*.

Simple cure for Rheumatism.— Boil a small pot full of potatoes, and bathe the part affected with the water in which the potatoes are boiled, as hot as can be applied, immediately before getting into bed. The pain will be removed, or at least gradually alleviated by next morning. The most obstinate rheumatic pains are known to have been cured by one application of this novel and simple remedy.— *Scotsman*.

Mr John Platt, of Marietta, Ohio, advertises in a paper of that place that he has succeeded in cultivating the genuine Tea Plant of China. He has, he says, raised a plant for ten years past at Marietta, and after a series of expensive experiments has been fully successful in discovering the art of dyeing and manufacturing the leaves into tea of a quality quite equal to imported Young Hyson. He offers gratuitously to furnish seed of the last year's growth to any gentleman desirous of pursuing the cultivation.— *N. Y. Cour. & Eng.*

HOEING CORN.

The object of hoeing and working the soil about corn, are, first, to destroy all weeds; and secondly, to loosen the soil at the surface, that it may the more readily absorb dews and rain which fall upon it, and prevent the evaporation of moisture, which takes place much sooner where the soil is hard, than where it is kept loose and mellow. The practice so prevalent, of deep cultivation by the plough between rows of corn is not to be recommended. If the ground has been properly prepared before planting, when not too wet, it will not need this additional loosening. After the corn has arrived at the usual size for hoeing, the soil should only be disturbed at the surface. For as the plants increase in size, they send out long fibrous thread-like roots in all directions, which branch every way and run all over the ground; and it is through these that they receive a large portion of their nourishment. To break or injure these would therefore materially retard the growth of the plants by cutting off their accustomed supply of food. And yet surprising as it may seem, a notion is very prevalent, that it is serviceable to break the roots of corn. But what should we think of such reasoning as this, were it applied to animals? What should we think if it were declared to be serviceable to cattle to deprive them of their supply of food? Or as a writer somewhere asks, what would be thought of the reason of a man, who should declare it as his opinion, and practically enforce it, that the best way to fatten a bullock, is to wound his tongue, break his teeth and batter his jaws, whenever he reached forward his head for food? Why then treat plants, which, as much as animals require their proper nourishment, in the same way?

Hilling corn we would also disapprove, although it is very commonly practised. Not unfrequently in performing this operation, all the loose mellow earth is scraped away from between the rows and heaped up round the plants, forming a sort of roof about them, throwing off the rain, which runs down into the hard soil thus laid bare at the bottom of the furrows, which the first dry weather bakes to the last degree of hardness, so that the roots can receive no moisture here, and little within these artificial pyramids. A reason is assigned in favor of hilling,—that it makes the corn stand firmer and more erect, and is less liable to be broken down by the wind. This may be the case when the plants are small and do not need any such help; but when they attain a height of several feet and are loaded with leaves and ears, it must be evident that a little loose earth piled about the roots is totally insufficient for such a purpose. It is the strong bracing roots which radiate from the stock which are to support it there; and to bury these roots deep under the surface while

they are growing, and thus shut out from them both heat and air, and render them weak and tender would only help to bring about the very thing we wish to prevent.

It is important to farmers that this subject be well understood; for a little knowledge may save many weary steps, and be the means of an abundant crop in the bargain. But if any farmers doubt the accuracy of our reasoning, we would request them to test it by experiment; by ploughing and hilling high one part of their corn, and using the cultivator and applying the same amount of labor in mellowing the flat surface of the other; and then measure the results.—*Yankee Far.*

Wool.—In many sections of our State, Agriculturists are turning their serious attention to the growing of Wool, with a certain prospect of a fair remuneration for the enterprise. It has been proved by experience that in this country, flocks of sheep can be doubled in a short period of time, and no doubt remains that eventually more Wool will be produced than will suffice for our own consumption. In 1831, the number of Sheep in the United States was estimated at twenty millions. Since that period the increase has been rapid, and the number at present may with safety be set down at thirty millions, producing at a fair calculation, one hundred and eight millions of pounds of washed wool. The price of wool has ranged, and is at present high, so that estimating the new clip at an average of 43 cents per pound, the total value will amount to \$43,200,000. In 1830, the number of sheep raised in Great Britain, was thirty-two millions, producing one hundred and sixty millions of lbs. of wool. In France in 1828, there were thirty-two millions of sheep, which produced upwards of one hundred millions of lbs. of washed wool. In Prussia in 1828, the number of sheep amounted to 11,606,200, of which, upwards of 1,734,000, were merinos. The number of sheep in the state of New York, at present, is computed at full five millions; in Pennsylvania, three and a half millions, and in Vermont, one million one hundred and fifty thousand.—*Phil. Com. List.*

INTERESTING EXPERIMENT.—A bar of heated iron to whiteness, held against a strong current of air from the blowing apparatus of a forge, instead of cooling, as might have been expected, burned brilliantly, throwing off scintillations in every directions. The editor of the Scientific Tracts who relates the account, does not undertake to account for it: but it is evident that the additional oxygen thus forced upon the already ignited metal, promoted the continuance of the combustion, chemically, in a much greater degree than its cooling power retarded it.—*Boston Mechanic.*

ON THE FEEDING AND MANAGEMENT OF MILCH COWS.

It is of great consequence in the management of a dairy that the cows should be treated with gentleness, so that they may not be afraid of being milked, or dislike the milker. A cow will not yield her milk willingly to a person she fears, hates, or apprehends ill treatment from. Young cows in particular, may have characters for gentleness and good milkers formed by the manner in which they are treated. This truth is of much importance to all concerned in a dairy or its products, is well established and illustrated by a communication from Mr Russell Woodward, published in Memoirs of the New York Board of Agriculture, in substance as follows:—

Having formerly kept a large number of cows, I observed many amongst them dried up their milk so early in the fall that they were not profitable, while others with the same keeping, gave milk in plenty until late in the season. I likewise have often heard my neighbors observe, that some of their cows, though very good the fore part of the season dried their milk so early that they were unprofitable and they would have to put them off; I accordingly found it expedient to find out the cause, if possible; and when I brought to mind the ways that some of my young cows had been kept and milked, I attributed the cause to the milking of them the first season they gave milk; and many experiments since, I have found that young cows, the first year they gave milk may be made, with careful milking and good keeping, to give milk almost any length of time required, say from the first of May to the first of February following, and will give milk late always after, with careful milking. But if they are left to dry up early in the fall, they will be sure to dry up their milk each succeeding year, if they have a calf near the same season of the year; and nothing but extraordinary keeping will prevent it, and that but a short time. I have had them dry up their milk in August, and could not by any means make them give milk much past that time in any succeeding year. I had two heifers which had calves in April, and after getting them gentle, I set a boy to milk them for the season, (which is often done the first season on account of their having small teats :) he was careless, and dried them both up in August. Although I was satisfied I should lose the greater part of the profit of them afterwards, yet I took it upon me the following year to milk them myself and give them good feed, but to no purpose. I could not make them give milk much past the time they dried the year before. I have two cows now that were milked the first year they had calves, until near the time of their calving again, and have continued to give milk as late ever since, if we milk them.— *Gen. Far.*

PRESERVING EGGS.

The present season of the year in which farmers and others should provide themselves with a stock of eggs for the season, as eggs are both cheaper and better in May and June than they are at any other season of the year. Good fresh eggs properly prepared will keep at least a year and have been kept much longer. Eggs dipped in varnish have been sent from India to England, and were hatched after their arrival. The great object seems to be the total exclusion of air, and the consequent evaporation of the fluids of the egg. Packed in salt, eggs sometimes keep well, the low temperature acting favorably, yet the air is not generally sufficiently excluded,—the yolk is apt to settle to the side of the shell, and the egg of course becomes worthless. Putting down in water thoroughly saturated with quick-lime is now generally adopted, and is found to be the cheapest as well as surest mode of keeping them uninjured. We have sometimes seen so much lime used as to pack close around the lower courses of eggs, and from which they could with difficulty be extricated. This is not necessary; that the water should be thoroughly impregnated with the lime is all that is required, and to secure this object, a thin layer of lime on the bottom of the vessel may be admissible, nothing more.— *Gen. Far.*

FACTS WORTH KEEPING.

Mr BUEL — Sir — In conversation with a gentleman from Saratoga county, a few days since, he communicated to me the following information, which I deem of sufficient importance to occupy a small place in your Cultivator.

He said a neighbor of his, who has a flock of sheep, has lost by death 27 out of 30 lambs and he could not account for the cause. The first symptoms of disease, are a drooping, running at the eyes, weakness in the back and loins, and losing of the use of their hinder legs, &c.

A person recommended the use of Lobelia, (*Indian Tobacco*) which he tried by turning a few of his lambs into a field where this plant was found in abundance. It was soon found by the lambs, which they ate freely, nipping it close to the ground. In a few days a perceptible difference was manifested, and they became remarkably lively, playing and gamboling about the field as though nothing had ever been the matter with them.

Having proved so salutary and beneficial to the few, he turned in the remainder, which had the same effect and all became healthy and thrifty sheep.

In order to be certain, and to test the efficacy of the plant more particularly, some of the dried Lobelia was given to some others, in the same situation, and produced the same effect.

On the qualities and preparations of Raw Silk, chiefly compiled from the Essays of Mr D'HOMERGUE.

Silk directly from the reel is called raw silk, on account of its being in an unmanufactured state.

There are three qualities of raw silk, graduated according to their different degrees of fineness. While in that shape and until they have undergone the operations that are to fit them for the loom, they are called first, second, and third, beginning with the finest. They assume other names as soon as they have been prepared and made fit to be used by the manufacturer. When they have ceased to be called single, organzine, and tram silk, according to their different degrees of firmness and the manner in which they have been passed through a certain machine called a mill.

Singles, or as it is termed in French, *le poil*, that is to say *hair silk*, are made of the first quality of raw silk, consequently the finest, as the name sufficiently implies. They are made of a single thread or fibre.

Organzine is the next in firmness; it is employed in weaving to make the warp of those stuffs that are made entirely of silk.

Tram silk is the coarsest of the three, and is used for the wool (filling) of silk stuffs.

Of the three qualities of raw silk, of which those different threads are made, the second, that which makes organzine, is the most in demand. The silk I have extracted (says Mr D'Homergue,) from American cocoons, is of that quality. In performing those operations, I have, for the first time discovered the superior fineness of the American silk, by finding, to my great astonishment, that it required a much greater quantity of threads to produce the different qualities of raw silk above mentioned, than the cocoons of Europe. Singles or hair silk, made of the same number of threads, or fibres, as in Italy or France, would be almost impalpable and entirely unfit for use. This supremacy will give to the American raw silk a great advantage over all others.

Raw silk (continues the same writer,) is an article of commerce of great value to the countries that produce it. Great Britain imports it for the use of her manufactures from Bengal, China, Turkey and Italy, to the amount of one million eight hundred thousand pounds sterling, or \$7,772,000 annually, and France imports it to the amount of 100,000,000 francs, or \$18,750,000, and makes it herself to the amount of between three and four millions of dollars more.

Mr Comstock, in his practical treatise on the culture of silk, (a work which I would earnestly recommend to the perusal of every adventurer in the silk business,) concludes his article on raw silk thus :

There are, then, six different kinds of silk extracted from the cocoons by processes of various kinds, or which differ more or less from each other in the manner of using them; and all of which require not only skill and dexterity, but knowledge acquired by long practice. I shall recapitulate them in their order, according to their degrees of fineness.

1. Silk of the finest quality, or singles.
2. Silk of the second quality, or organzine.
3. Silk of the third quality, or tram silk.
4. Sewing silk of the first and second quality.
5. Cordonnet, or twist of do.
6. Feloselle, or floss silk.

The following articles, on the preparation of silk from the above mentioned "Treatise," by Mr Comstock, are adapted to proceedings upon a large scale; but they may be easily reduced to such small proportions as may be required in domestic operations.

CLEANSING SILK.

Though cleansing silk comes more appropriately within the province of the manufacturer than the culturist, yet, as the manufacture of sewing silk and twist may be profitably connected with the growing, we subjoin the method by which it is cleansed and prepared for dyeing.

Silk, as left by the worm, contains certain impurities which must be separated from it, especially when it is intended for particular kinds of fabrics. Yellow silk contains gum, coloring matter, wax, and an oil similar to the essential oils of many vegetables. White silk also contains gum, wax, and an oil slightly tinged with coloring matter, resembling the liquid in the chrysalis of the worm. By chemical experiments it has been ascertained that the amount of gum is from 23 to 24 per cent. It is dry, friable, and, when pulverized, of a yellowish red color — soluble in water. The coloring matter is resinous, but exists in a very small proportion — supposed to be from 1-58th to 1-60th per cent. The wax is hard, but brittle, and slightly colored. Its proportion is one half per cent. These substances affect the whiteness and flexibility of silk, and the process by which they are extracted is called "cleansing silk." It is also varied according to the nature and kind of the article for which it is designed.

These processes are called "ungumming," "sulphuring," and "aluming." Silk also intended to remain white, is boiled and gummed, while that intended for dyeing is boiled, but left ungummed, on the supposition that the gum has some affinity for the coloring matter with which it is to be incorporated.

The silk, intended for white, is made up into hanks by running a thread around each hank, con-

taining a number of skeins tied together. The hanks are then untied, and several of them bound together in a bundle of convenient size. This is done that the silk may be handled without becoming entangled. The silk is then prepared for ungumming, which is done by putting it in strong soapsuds. For every hundred pounds of silk take thirty pounds of soap and dissolve it in water. Cutting it into small slices will facilitate its solution. Some dyers consider fifteen pounds of soap sufficient, and think more injures the lustre of the silk.

After the soap is dissolved the kettle is filled up with fresh water, and placed over a moderate fire until it rises to the highest possible degree short of boiling heat — for should it boil it would injure the silk by making it flossy. When the bath, or suds, is ready, the hanks of silk are immersed in it, or such parts of them as the capacity of the kettle will admit, and suffered to remain until it is freed from the gum, which is determined by the whiteness and flexibility of the silk. This operation is repeated until all the parts of the hank have been immersed. After the hanks have been ungummed, the soap and water is wrung out of them and they are next to undergo a process which is called bagging.

BAGGING SILK.

To bag silk, bags of strong coarse linen are prepared. They are about fifteen inches wide, and four or five feet long, and closed at the ends, with one side left open. These bags are filled with hanks of silk, laid in lengthwise, and sewed up with strong thread. These bags are put into a bath, or suds, prepared in the same manner, and with the same proportions as the former, and boiled for fifteen or twenty minutes. When the suds begins to boil over it must be checked by throwing in a little cold water. While it is boiling it must be stirred often to bring up to the surface such bags as are at the bottom of the kettle, or it will be liable to be burned. It will also produce more uniformity in boiling. This operation, it will be remembered, is to be performed when the silk is to be left white.

Silk intended for dyeing is boiled in the same manner, with this difference: the silk is continued boiling three or four hours, and the kettle occasionally filled up with water. For common colors, twenty, instead of thirty pounds are used in making the suds; but if intended to be dyed blue, iron gray, or other colors, thirty pounds is used.

After the silk is supposed to be thoroughly boiled, the bags are carefully taken out of the kettle, opened, and the silk examined. If any part remains unboiled, it must be put in and boiled again. This is ascertained by the yellow, and a certain

kind of slime on such parts as have not been boiled.

A more simple method of ungumming silk, has long been practised in Connecticut, and it will doubtless answer every purpose, provided measures are taken to prevent its becoming entangled. This method is to merely boil the silk in water saturated with a small quantity of soft soap, or the lie of common wood ashes.

SULPHURING SILK.

When it is desirable to give silk a peculiar firmness, it is fumigated with brimstone. This process is called sulphuring, and is thus performed:— A high studded room or garret, without a fire place, but with doors and windows which may be thrown open at pleasure for ventilation, is chosen for the operation. The skeins of silk are hung on poles suspended from above cords, at the height of seven or eight feet from the floor. For every hundred pounds of silk, a pound and a half, or two pounds of roll brimstone is procured, placed in a chafing dish, and set on fire. The doors and windows are then closed, as are also all crevices through which the fumes of the brimstone might escape. In this situation it is left for twelve or fifteen hours, generally through one night, when the doors and windows are opened. When the room is sufficiently ventilated to admit of going into it, the silk is taken down. The process is sometimes repeated on silk designed for some uses, particularly azure whites.

ALUMING SILK.

When silk is to be dyed, it sometimes undergoes a process which is called "aluming," which is thus performed. A solution of alum water is first prepared by dissolving forty or fifty pounds of alum, in forty or fifty buckets full of water, or in about the proportion of a pound to a bucket full of water. The alum is dissolved in hot water, and then poured into the tub, or other vessel containing the cold water. In doing this, care must be taken to stir it briskly, so that it may mix; otherwise the coldness of the water might produce a crystallization or congelation, as it is termed by dyers.

The skeins of silk, after being washed and freed of the soap by beetling are strung together by a cord, care being taken that the hanks be not too much rolled up, or folded one upon another, and steeped in the alum of water, for eight or ten hours. They are then washed and wrung with the hands over the tub, that the alum water may not be lost. They are then raised in clean water and beetled again when necessary.

In aluming silk, especial care must be taken, that the skeins are not put into the alum water until it is cold, as a warm solution would destroy the lustre of the silk.

F E S S E N D E N ' S

S I L K M A N U A L

AND

P R A C T I C A L F A R M E R

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

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BOSTON, JULY, 1836.

(For Fessenden's Silk Manual)

T. G. FESSENDEN.

Respected Friend—In a late communication from the State of Ohio, there was forwarded to me the inclosed certificate, which I wish to have inserted in your Silk Manual, together with this notice that I received a double premium of one dollar a pound from the State of Massachusetts for reeling and throwing silk from the cocoons by one operation. I now make machines with reels fitted to them, so that if silk is wanted to be reeled only, without twisting, for use or sale, it may be done to advantage, or spun into warp or filling for weaving, sewing silk or twist, as may be wished for, immediately from the cocoons, with great despatch. Also make machines calculated to be used by water or steam power, with any number of spindles requested; and also machines for spinning sticks of twist. Any patronage will be gratefully received.

With respect,

ADAM BROOKS.

Please direct to Adam Brooks, South Scituate, Mass.

The certificate referred to above, is as follows:

Mr THOMAS WHITE.

Dear Sir—Having been informed that you are about to obtain an interest in Brooks' Silk Reeling and Spinning Machine, I think it due to you and the community at large, to state that, although I came to this country with my mind somewhat prejudiced in favor of European ma-

chinery, yet, since I have seen the operation of Brooks' machine, and wove your silk last winter, which was prepared for the loom on that machine, I am compelled to give it the preference over all others that I have ever seen, either in this country or in Europe. I wish you to encourage it in preference to any other, for I presume you will not be able to get a better. Silk prepared on that machine is worth at least one dollar per pound more than that prepared on any other kind of machinery that I have ever seen. At a single operation the throwing and trammig is performed, thus saving a considerable amount of time and expense.

I have been engaged in the silk business for 17 years, and have had an opportunity of seeing most if not all the machinery used in this country and in Europe, and think the Reel, &c., of Mr Brooks of Massachusetts, decidedly preferable to all others.

Yours, respectfully,

ROBERT FOX.

Steubenville, Ohio, May 13, 1836.

From the Silk Culturist.

MORUS MULTICAULIS IN EAST FLORIDA.

In the last Silk Culturist there is an article under this heading, giving some account of the *Morus multicaulis* in the garden of the Rev. Mr Thomas, as seen about the middle of December last. A correct account of the accidental experiment by Mr Thomas, may be useful, perhaps, to the growers of the *Morus multicaulis*, and as it stands in the article of E. H., alluded to, it may mislead them. I take the liberty to send you a true history of the matter.

In November of '33, I arrived in St Augustine with fifty *small* plants of the *Morus multicaulis*, obtained from Mrs Parmentier. They were the first ever brought to Florida. Little attention was bestowed on them. They were planted in a crowded nursery, and allowed to vegetate as they could till the spring of '35, when some of them were laid and some cuttings taken from them. A few which had room to expand are now fruit bearing trees, of some ten inches in circumference. It was late in the spring, or perhaps June,

when I gave the Rev. Mr Thomas a few cuttings, and with them a sprout with a fibre of root, which was recommended to his special care. He gave it a good situation, and its growth was remarkable. In three months, I have no doubt it had increased in volume one hundred fold. At this time, about the first of September, I advised Mr T. to lay it; but he replied that it was so beautiful he disliked to spoil it. He did, however, lay it in the early part of September, and in three months more, when he was talking of a return to Carolina, I offered him ten dollars, I think, for the product of the little plant I had given him six months before. He probably got much more. The case, however, was a remarkable one.

The plant may be propagated here much more rapidly than at the north, as the growing season is ten months instead of five or six; but we are not to expect, in extended operations, to realize results in proportion to Mr Thomas's success with a single plant. Mostly from the small lot of plants I brought on as above, there are now some twenty or thirty thousand in the territory; and as within the last year I have introduced a new and larger stock from the north, and as others have also brought in some within two or three years, if allowed to proceed in their propagation by our masters, the *Seminoles*, there may be millions of the *Morus multicaulis* in East Florida. The unfortunate Mott, when attacked and murdered, was employed in planting the *Morus multicaulis*.

D. BROWN.

St Augustine, June 13, 1836.

From the Silk Culturist.

Fredericksburg, Va., June 30, 1836.

Mr F. G. COMSTOCK,

Dear Sir:—The excitement upon the silk business is getting high in this part of the country. A company, called the Potomac Silk and Agricultural Company, obtained a charter from the legislature in March last, with a capital of \$5000, with the privilege of increasing it to \$50,000. They held their first meeting on the 4th inst. when the following officers were elected:—

JOHN MONCURE, *President.*

Wm A. Jackson,
Henry R. Roby,
Thomas F. KNOX,
William Allen, } *Directors.*

Thomas F. Knox, *Sec. and Treas.*

The Company have purchased 400 acres of land, and have planted about 2000 Chinese Mulberry trees. They fed about 5000 worms this season, merely as an experiment, in an old house, without a covering, and consequently exposed to

all the rain that fell, and remarkable to say, not a single worm died; the rain seemed rather to refresh them. A gentleman who visited the farm a few days since, brought home with him a small bush that was filled with cocoons of very large size. The worms were fed with the black and white mulberry leaf, of which there is a sufficiency to feed one million of worms. The black and white mulberry tree is very abundant on the land, some of very large size.

Respectfully, H. R. ROBY.

From the Silk Culturist.

Austerlitz, N. Y. June 10, 1836.

F. G. COMSTOCK, Esq.

Sir—I have perused your valuable paper, the "Culturist," the year past, and have subscribed for the year to come. I am a plain, "matter of fact" farmer, but would like to see the time when mulberry nurseries and silk manufactories in America shall be as common as they are now in France and Italy; and when old England shall send out her ships to American ports to bring back silks of the richest kinds. I am fully persuaded that the cultivation of the mulberry tree is going to be a valuable business for a farmer, even if he does not wish to make use of them himself for silk; for at the price at which they are selling here (which is 18 cents for each tree 3 years old), they will be valuable for years to come.

I have obtained a few trees, and have sown seed the last spring, and have also about 100 cuttings of the *Morus multicaulis*, or Chinese mulberry, which have been in the ground but twenty days, and have grown above the ground from six to eight inches. Many of them have also put out two shoots, though there was but one bud on them when planted—they were about two or three inches in length, and the buds had not started, when they were put into the ground. Now, sir, will you please give me some information relative to the propagation of this valuable species of the mulberry:—

1st. Can I increase my stock of plants faster by cuttings than by layers?

2d. If so, when should they be cut, and how kept till planted?

3d. Should there be more than one bud to each cutting?

4th. If propagating from layers is the best method, at what time should they be laid down, and should all the shoots be laid down, or one left standing?

5th. As I was desirous of increasing my stock as fast as possible, I cut off the trees in the spring near the ground, and there are several shoots from each already started; now from these may I gain anything by bending them down to the ground to

gain separate roots, or shall I heap the earth up to them for that purpose?

I have never seen a plant of the *Morus multicaulis* before these, which I have had but twenty days, and I do sincerely wish, for the good of the cause, to have a little instruction on this my new project. Will you also please to inform whether I may take the cuttings from the White mulberry tree, and when, and how they must be treated? You may, if you please, give me an answer by letter, or in your valuable paper, in a proper time.

Yours, &c. JOHN B. CADY.

ANSWER BY THE EDITOR.—We are always pleased to receive letters of inquiry from practical cultivators, and especially such as are sensible of the importance of being “matter of fact” farmers, and manifest that spirit of intelligence and inquiry which apparently dictated the foregoing letter. Many farmers have enough of the “go ahead,” but unlike the famous Davy Crockett, are not “sure they are right,” and consequently do nothing, or do to no purpose. It cannot be expected, in the infancy of a new branch of rural economy, that every farmer will be conversant with the subject in detail; but every farmer in the community has a tongue and a pen, and if they would use them with the same freedom as Mr Cady has his, a mass of information would be collected, and the business of growing silk become as common and familiar as the growing of corn and potatoes. In the management of our paper, it is our intention to give full directions for every step in the process of growing and manufacturing silk; but there are almost numberless cases occurring in practice, which will not occur to us while seated in our editorial chair, and may not while engaged in our own experiments and operations. Information on these subjects must, therefore, be drawn from us, rather than expected as a matter of course; and we know of no better way than that adopted by Mr Cady and some of our former correspondents, of putting direct interrogatories, to be answered in the *Culturist*. There is a childish timidity about some farmers, which, though honored with the appellation of modesty, is highly detrimental both to their individual interest and that of agriculture in general. It prevents that interchange of views, discoveries and improvements, without which the science of agriculture cannot advance, or a knowledge of its progress be diffused throughout the community. If farmers would communicate freely with each other, and keep up a familiar correspondence with editors of agricultural papers, they would soon see their practical effects on themselves, their families, and their farms. But to the questions proposed by Mr Cady.

1st. Of all methods of propagation, except from seed, that of layers is undoubtedly the best, espe-

cially where a rapid increase is desirable. When the stem or stems of the plant are laid down, they will generally throw out shoots at every bud, and all draw nourishment and support from the root of the parent stock till separated from it. This gives them an advantage over cuttings, both as it respects increase of number and size of plants, which no extra cultivation can counterbalance. In all practical cases, therefore, we should prefer layers.

2d. Cuttings should be cut in the spring, before the buds begin to swell, and kept in moss or earth to prevent their drying. Packed in this manner, they may be transported from one extremity of the country to the other, without damage. They may be cut after the buds have considerably swollen; but in that case, they should not be long out of the ground.

3d. The rule in taking cuttings from the stems, is to have two buds on each,—one for the root, and one for the branch; but they will sometimes send out roots when there is no bud below the surface of the ground.

4th. The shoots should be laid down in the spring, about the time of transplanting. When trees are transplanted for the purpose of being laid down, a good way is to set them so that they will incline towards the ground, and form an angle of about fortyfive degrees; then bend them down and fasten them with wooden pins; leave them uncovered until the buds begin to send out shoots, and from time to time draw the earth over as they advance in their growth. The whole, or any number of the shoots may be laid down, as may be most desirable.

5th. If the new shoots attain sufficient size, they may be laid down, and a second crop obtained; but if the season is far advanced, it will be better to omit it till the following spring, when they may be again transplanted, laid down, and their number greatly multiplied. Cuttings from the White mulberry are treated in the same manner as those from the Chinese.

France is considered a silk growing country, yet she does not grow sufficient for her own manufactures, and it is said, annually imports raw silk to the amount of \$6,000,000.

England, owing to the humidity of her climate, cannot raise the worms to advantage, and for her numerous manufactures is obliged annually to import the raw material from other countries, to the amount of about \$17,000,000. It is stated that we import annually of raw silk to the amount of about \$10,000,000, and of the manufactured over \$16,000,000.

Unless the United States push the culture of the mulberry and raising of cocoons beyond anything

now in operation, many long years must intervene before we can supply the demand of our own markets. Inhabiting as we do one of the best climates in the world for manufacturing silk of the best quality, instead of paying ten millions of dollars annually to other nations for the raw material, we ought to export two or three times that amount.

It is said our imports of silk stuffs exceed our exports of bread stuffs.—Why is this? Only because we do not duly appreciate and improve the means we have. Let our intelligent farmers be convinced that the silk business is profitable, and then we can hope that every exertion will be made to extend the cultivation of the mulberry and raising of cocoons.

It is a matter of regret that any one should view the subject as a wild project, and say that although it may be good business for a few years, if found lucrative, everybody will engage in it, and glut and ruin the market. We wish the subject could be so presented to our fellow citizens, as to impress them with the importance of examining the subject, on the broad scale of greater national importance than any agricultural subject ever yet started.

But if doubts and fears shall remain, we only ask them to commence the culture of the mulberry on a limited scale for a few years, not to interfere with any other agricultural pursuit. Let the experiment be made upon some of our almost barren and useless portions of poor, dry, stony and gravelly soil.

It may be asked if the silk business can be made more profitable than almost any other crop, why not take the best and richest land? A fair question, indeed. But such land is not the best for the Chinese mulberry, and it would be desirable to have every patch of poor, waste, dry land devoted to some useful purpose.—*Silk Cabinet*.

ORNAMENTAL TREES.

Any one who takes his morning walk about town at this season of the year, will admire the shade trees which have been planted ten or twelve years. Only think how much might have been done, had fine trees been planted in all our streets ten or twelve years ago. Take as an instance the lot on which Dr Myrick is now building a fine house. It was last year a vacant lot, surrounded with trees planted about twelve years ago; they are now splendid. It might have cost five dollars to plant them. The lot would now quickly bring \$500 more than it would bare of trees. As a matter of profit, then, every owner of land should have streets run out early, and trees planted on them without loss of time; and take care to protect them from injury, too, when planted. All the scatter-

ing and venerable native white oaks should be preserved if possible. We see some of these, as well as other trees, mutilated by barbarians who are a disgrace to a civilized community, and who ought to be sent across the Mississippi with the Pottawatomies and Kickapoos. Almost every black cherry tree in the vicinity is horribly mutilated by lawless, ill-bred boys, who ought to be put in a work-house or tread mill. The fault is generally in the parents, who never teach them any better than to tear the branches from trees and shrubbery. Within a few days we have met children lugging home back loads of the branches and blossoms of lilacs, ruthlessly torn from the stems where they flourished in all their freshness and beauty, to fade and be cast away after an hour's handling. School teachers could do something to repress this rapacious and destructive propensity in youth, and inculcate notions of refinement and rural beauty.—*Kennebeck Jour*.

(From the Genesee Farmer.)

MANAGEMENT OF SILK WORMS.

Mr Tucker:—According to your request, I now hand you a statement of what I consider the best mode of raising the silk worm for beginners, with the necessary cautions. In the first place, I would caution against raising too many the first season, as any person will gain as much experience for future operations by raising 500,000; and I am sure an advantage will arise in having too few rather than too many, as every one commencing a new employment must have something to learn.

Tables made of seasoned rough pine boards will answer, with old newspapers laid thereon, standing from the walls, with the legs standing in small tin pans, which are to be kept filled with water. Mine were at the top 9 inches in diameter, and 3 1-2 deep. This will effectually prevent being troubled with black ants, that have often been stated as being very destructive to the worm, and will also guard against mice. This method is far preferable to the use of lemon juice, which I have seen recommended, as once done it answers for the life of the worms. This precaution is quite necessary, where these ants are about. When the season arrives, place the eggs on one of these tables, and keep only as many as will hatch in twentyfour hours, and if the others are destroyed at once so much the better. It will save a vast deal of trouble to have a spontaneous hatching as near as possible, as in the different moultings they require no food, which is distinguished by the holding up of the head and the torpid appearance of the worm, of which full instructions are given, as also for their spinning, in Cobb's Manual, &c.

Extract from the Message of Governor Hill to the Legislature of New Hampshire.

“There is no pursuit that tends more directly to the independence and happiness of the people than agriculture. More productive than as it is more necessary than any other, it is a matter of gratification and pride that it is a calling scarcely less reputable than that requiring the highest order and severest application of intellect. The most intelligent and most meritorious citizens are of those who labor with their own hands in agricultural pursuits. Of such men it is safe to make not only legislators to frame our laws, but magistrates to execute them. As agriculture has risen in estimation, so have our farmers increased in wealth and all the means of independence. In the westerly part of the State especially, of late years, the rearing of sheep and the production of wool has come in aid of other objects yielding ready money and often an unexpected profit.—One new subject of enterprise succeeds another; although in a rougher soil and a severer climate, the time may arrive when wool to New England shall be as important a staple as the wheat of the Middle, or the cotton of the Southern States.

The public attention has recently been drawn to the culture of the mulberry, the raising of silk worms, and the production of silk. That this important item of consumption and of traffic may be produced in the United States as extensively as in any country of the world, will not be disputed. The late changes of the tariff bring the bulk of articles of which silk is composed or is a component part, into the country free of duty; and from this cause it is extensively taking the place of the finer cottons and woollens. The value of imported silks into the United States for home consumption during the year 1835, according to the custom house returns, was nearly sixteen millions of dollars. The introduction of the article free of duty, instead of discouraging, seems to have given an increased impetus to preparations for planting the mulberry and hereafter extending the production and manufacture of silk. It remains to be tested whether the soil of our State shall be well adapted to the mulberry cultivation. Nothing yet appears to discourage the undertaking; and as the mulberry orchards may be planted without the investment of a large capital, it might be useful to afford legislative countenance to such towns from the State as already, or may hereafter possess farms employed in support of the poor, in the cultivation of the mulberry, as would fully test the fact of the adaptation of this climate to the production of silk. As silk is deprived of what has been called the protection of the general government, it might not be invidious if the State should except such land as is actually employed in raising the mulberry from taxation until the orchard shall become productive.”

THE WHEAT CROP.—Some of the Southern papers make loud complaints of the failure of the wheat crop. The Richmond Whig of the 15th instant, says of the crop of wheat throughout the State, that,—

“What the hard winter left, the fly had nearly extirpated. The small remainder spared by the Hessians, is now consumed by the rust, the effect of near three weeks unintermitted rain. In addition to the assaults of the frost, the fly, the cheat, the rust, the strout, and Heaven knows what foes besides, James River and other streams have been visited by a fresh, the greatest for twentytwo years. This has left the wheat fields within its influence unworthy of the scythe. The failure of the wheat crop has become so common, so invariable indeed, in middle Virginia, that it is probable agriculture in that region will undergo another revolution.”

The Newark Daily Advertiser says that in the lower part of Sussex county in New Jersey, the Fly has nearly destroyed what little prospect of grain was left by the severity of the winter. Similar complaints were received from the county of Warren. But in Essex, Bergen, Monmouth and Somerset counties, the fields look “passably well.”

TABLE COVERS.—The Shakers of Lebanon, N. H. are engaged in the manufacture of an article for table covers which resembles oil-cloth, but has many advantages over it, inasmuch as it is perfectly pliable, and will double as readily as linen cloth. It is made of common sheeting, painted with gum elastic and other ingredients, in a very tasteful manner, with borders of garlands, wreaths and vines, presenting an unique and very handsome appearance.—*Times.*

BUNKER HILL MONUMENT.—A writer for the Salem Landmark suggests the following plan for completing that edifice: “I propose, at each celebration in New England, on the approaching anniversary, when the usual toast is given ‘to the heroes of Bunker Hill,’ that a plate should be handed round after it is drank in pure sparkling spring water, and that collections be made for the monument which stands on this hill, and that all be incited to contribute to it, but in no instance, over one dollar. The sums so collected to be transmitted by the Presidents of the day to the President of the Bunker Hill Monument Association, in Boston, who will acknowledge the sums in his paper. Thus shall we know that we are the worthy descendants of the noble band who dared to resist the tyrants, and who are worthy of the liberty which was bequeathed to them by their fathers, and even by themselves, over a degrading and debasing appetite.”

A friend who is conversant with the cultivation of the Beet Root in France, has furnished us with the following interesting outlines.—*Northampton Cour.*

“Of the seven varieties of the Beet Root usually cultivated, the *White* (*Beta alba*) is preferred by the experienced manufacturer, as it is found to contain a larger proportion of the saccharine matter to a given weight of the root, than any of the others.—Though this plant will grow in almost any soil, it prefers a deep loose loam, in which its long and tender fibres may penetrate and the root develop itself without obstacle.—It follows that a stiff compact soil should be avoided, and still more a low damp situation, where the root becomes so impregnated with aqueous parts, that the difficulty and expense of separating these would in most cases be far from remunerated by the produce. In high ground the beet succeeds well, if the season is not too dry and in these situations (*eeteris paribus*) is more productive in sugar than elsewhere.

As to climate, a northern latitude is found to suit this plant best, the north of Germany, Prussia and Silesia, the countries where this new application of it was first made, are more favorable to it than even the northern department of France, as experiment has amply established, and the trial of it in the South of France has constantly failed, though it was at first supposed that this root, favored by the genial sun of that climate, would, as well as its other productions, contain a larger proportion of the saccharine principle than those of colder countries.—This hypothesis, founded on a mistaken analogy supposed to exist between plants growing above and below the soil, proved as might have been expected, completely fallacious, and the culture there is now given up.

The results of divers authentic accounts of the culture and manufacture of the beet root into sugar, and various circumstances of soil, and the management and where all the elements for establishing a true estimate are united, clearly demonstrate.

1st, That other things equal, the *largest* manufactories are the most profitable.

2nd, That the brown sugar made at a small establishment, will not, however, cost the manufacturers more than six and a half cents per pound, and that the same sugar made at a manufactory four times as large, will not cost over five cents and a fraction. That independent of the product in sugar, the residue of the beet or pulp, the saccharine extracted, is still valuable as food for cattle and amounts to a fourth of the weight of the beets employed. The fact first to be ascertained is, at what price the farmer can supply the root cut in this country, when cultivated on a large scale.

The expense of manufacture is in most of its items higher in France than it would be here; labor excepted; wood, which is a very important one, costs there from four to five dollars a cord, here we could get it of the quality we should require for less than half this cost; and water power for working and rasping is so difficult to be had in some parts of France, that there are very few of the manufacturers who are able to employ any other than manual and animal labor, at a greatly increased expense. The combustible material in France is equal to the whole amount of wages paid to the hands employed, including the operation of refining the sugar. All things considered, I repeat that, I am persuaded this application of the beet root is destined at no very distant period, to offer a new and productive source of riches to our industrious and ingenious New-Englanders, and amongst its other benefits, will render us independent of slave labor for one of the most important articles of consumption.

The idea of producing sugar in France in competition with the colonies, was for years treated as visionary and absurd, and by none more than by the West India Planters themselves, who are now compelled to call on the Government for a protecting tax on the indigenus sugar.”

GYPSUM OR PLASTER OF PARIS.

When pure it does not effervesce with acids; it is insipid in taste and free from smell; but there are other sorts which vary in purity, and hence the analysis of many chemists differ in their accounts of its properties. There is, however, a simple mode of trying its quality, which consists in putting a quantity of it, pulverised into a dry pot over the fire; and when heated it gives out a sulphureous smell. If the ebullition, or bubbling which then takes place is considerable, the plaster is good; but if not, it is considered indifferent: and if it remains motionless, like sand, it is thought to be worth hardly any thing. Another test of its goodness is obtained by putting the powder alone into an iron pot over the fire, and when it bubbles, like boiling water, it will admit of a straw being thrust to the bottom without resistance. It is stated by Mr Smith of Tunstall, that having a field of red clover which had been manured with gypsum, and had produced a fine crop, he carefully repeated the trial on two square perches—one with powdered gypsum, the other without any: the result of which experiment on the crops, when mown for hay and afterwards cut for seed, was as follows:—

Hay crop.	Seed.	Straw.
Gypsum 60 cwt. 3 qrs. 21 lbs.	22 cwt. qrs. 12 lbs.	
No manure 20 cwt. 0 qrs. 20 lbs.	5 cwt. 0 qrs. 0 lbs.	

He says cattle show a marked predilection for clover which has been gypsumed, that, after once

having it, they have been observed to walk deliberately to it the whole length of a field without tasting a part that was grown without it, though a tolerably good crop; and in his opinion it not only increases the vigor and the verdure of the plant, but also perceptibly increases the richness of its juices.

The soils to which it is most congenial, are the light, dry, sandy, and gravelly, to heavy loams, strong clays, and to wet land it seems to yield no benefit unless the former happens to have been well limed.

The crops to which it is most appropriate, are the artificial grasses, though it has been also known materially to improve the sward of moss bound pasture. It never appears to produce better effects than when it has been laid on red clover, already so far grown as that the leaves nearly cover the soil; for there seems no doubt, that it acts with the greatest force when it adheres to them, and the longer it remains upon them the better. It should therefore be applied as a top dressing. In order to spread it, with the intention of covering the leaves, a calm day should be chosen; and it should be spread in by hand, or rather through a sieve, either early in the morning in which the dew has fallen heavily, or late at night, or after a gentle shower, that thus the moisture may occasion it to stick to them.

With respect to the permanency of gypsum as a manure for artificial grasses, it has been stated in those cases in which its beneficial effects have been proved, that sainfoin dressed with it did not materially decline until the fourth crop and on sowing again it recovered, and became as productive as before, yielding on a thin soil about a load and a half; whilst another patch dressed partly with soot, became so weak as to be scarcely worth mowing. Its durability when applied to lucerne, has been found to produce very fine crops for five years. As an instance, both of its effect and the prejudice which many people entertain against it as a manure, an anecdote has been related of a gentleman, who, having recommended its use, ordered his servant to spread a small quantity of it secretly upon an adjoining piece of sainfoin, belonging to an old farmer, who vehemently decried it. The crop, proved surprisingly abundant on that spot to which the gypsum had been applied, but upon discovering its occasion, the old man, instead of profiting by the circumstance, grew peevish, and wondered why his neighbor should have taken the liberty of spreading this new-fangled manure over his sainfoin, which, for aught he knew, might do more harm than good. The laugh, however, going against him, he determined to get rid of it by breaking up the sainfoin and sowing peas, when, behold! they also rose in judgment against him, so evidently on the gypsum-

ed part, that he was constrained, though reluctantly, to acknowledge, that "it seemed good stuff;" yet he was never known afterwards to lay a bushel of it on his farm — *Bost. Cour.*

GENTLEMEN :

Please to give the following remarks and observations, a place in your instructive Long Island Star, and it may lead to greater advantage to the Farmers, and comfort to the lovers of fruit. I have discovered, beyond a doubt, an antidote for the insects that destroy Fruit Trees at the roots, which is cheap and simple, and can be attended to by every Farmer, and Gardner, in the country, viz: make a recess around the trees, of sufficient depth to contain from a peck to a half bushel of wood ashes, such as are used to make soap, then fill the place with soft water, and when it is nearly subsided haul on the loose earth, that was removed to give place to the ashes. This should be done between the 8th of May, and 15th of Sept. in the several States north of the Potomac, and those States south of that line, between the 5th of April, and 12th of Oct. and must be repeated every year, until there is not a trace of an insect left. The ashes so deposited will hold their virtue during the growing season, and every rain will produce a fresh supply of liquid, which is certain death to the bug or worm, that falls in contact with it, and at the same time will be of great benefit to the health and growth of the tree.

With great respect &c.

T. H. D.

BEEs.—The Vermont Farmer recommends the following method for securing bees when swarming:

Procure one or two hemlock bushes, four or five feet high, and fasten them in the ground as you do bean poles, so as to stand firm, with all their boughs on, within a rod or two of the beehouse, and nearly in front of it. When they swarm, your bees will almost invariably alight on these, where they can be managed without the least trouble, and the whole business finished in a very few minutes. Very often by rubbing upon it a little low balm, you can make the swarm attach itself to just what limb you please. We have ourselves tried this, year after year with perfect success.

LARGE STRAWBERRIES.—We were, a few days since, presented with several mammoth strawberries, from the garden of Mr. N. G. Carnes, of this village, the largest of which measured three and three-quarter inches in circumference. They were perfectly ripe, and of a flavor as delicious as any we have ever tasted.— *Poughkeepsie Jour.*

LIME.

An additional fact in relation to the fertilizing quality of lime seems to be rendered very probable, if not certain, by some experiments which have been recently made, in this town. A Mr Moore, in digging a well, hit upon a formation of soft or friable limestone, combined with fossil shells of great diversity of formation. Specimens were sent in different directions, and there was but one opinion among those who tasted them, that it was a limestone formation. A bed of gypsum is very valuable. Mr Moore and his neighbors appeared determined to believe that they had discovered a valuable gypsum formation on their farms. They sent wagon loads to Plaster Mills and Grist Mills, and caused, what they pronounced gypsum, to be spread on a great number of fields, during last fall and this spring. The results have been in every instance, that the clover, wheat and spring crops have been essentially benefited by the application; and Mr Moore and his neighbors still believe the substance which they are selling as gypsum, surpasses in efficacy, either the Wheatland or the Cayuga plaster. That this formation is equally efficacious with the plaster which is generally used in this section of the State, there seems no reason to doubt, and that it is a limestone formation, is beyond the possibility of doubt.

It is possible that the mechanical operation of grinding or pulverizing crude or unburnt limestone, renders it equally fertilizing with gypsum?

It appears difficult to avoid this difference. Mr Moore has erected a windmill,—in digging and vending what he calls plaster, in great quantities; and the farmers, from hundreds of experiments, entertain the most entire confidence in its efficacy.

With a view of obtaining some additional facts on this subject, which in its present age, is a little perplexing, a person called on Mr Moore with a vial of muriatic acid in his pocket. Mr Moore showed him specimens of Chittenango, Cayuga, Phelpsstown and Wheatland plaster—each of these specimens effervesced on the application of acid. This fact seems to add to the perplexity of the subject, and would appear to indicate that we are using (and certainly deriving great benefit from the use,) a certain description of limestone, but which is not gypsum. If this is a fact, it goes to confirm the idea that limestone in a pulverized state is equally fertilizing as gypsum.

This subject is important to the farming interest, and certainly merits further investigation. It would not be difficult to erect machinery which would crush the hardest limestone, and prepare it for grinding in a common plaster mill.—*Livingston Democrat.*

GRUB OR CUT WORM.—The farming interests of this country, have long and ineffectually sought for some mode to arrest the depredations of this Worm, so destructive to the prospects of our Agriculturists, in the staple article of Indian Corn.

The writer of this, is fully confident from analogy, that the following, if carefully adopted, will perfectly secure the Corn against the influence of any insect or worm accustomed to injure it, viz :

Take one gallon of common fat or slush, and one quart of the spirits of Turpentine, let them be put together in a tight barrel, (having one head out) and being well stirred, add half a bushel of unslacked lime.—In this condition, the lime should be carefully slacked, and intimately mixed with the other ingredients, and water gradually added, until the barrel is full.

As soon as the corn makes its appearance above ground, let a portion of the mixture be applied by means of a common watering pot, to the amount of about a tea cup full to each hill of corn, and there is scarcely a doubt but that the worms will vacate the identical spot, from the abhorrence that all kinds of worms have to even the very smell of *Turpentine*.—*U. S. Gaz.*

The Cut-Worm.—We regret to learn that the cut worm has discovered a keen relish for the Chinese Mulberry, the superior quality of which makes its introduction so desirable to our silk growers. The Northampton Courier says they eat off the shoots of the young trees just at the surface of the earth. Soot and ashes are preventatives.—*Nantucket Inq.*

Starch from Potatoes.—We are informed that the manufacture of Starch from Potatoes has engaged the attention of our enterprising neighbors in Vermont, and already become an important article of commerce, it being employed to a great extent by the New England cotton manufacturers and calico printers, with much success, as a substitute for wheat starch for the purposes of sizing and finishing cloths. Its superiority over wheat starch is conceded, we learn, by many of the principal manufacturing establishments. It gives to fabrics a more brilliant and elastic finish, requires less in quantity and bears a less price; three important considerations, which we should suppose would induce every manufacturer to try the experiment of its use. The mode of preparation is similar to that observed in wheat starch, except that it requires a slight fermentation, which is produced by exposing it to the air for a short period.—*Troy Whig.*

An English clergyman, has invented a new motive power, arising from the compression of fluids.

THE MULBERRY.—Although fruit trees of nearly every kind, especially the peach, have suffered severely almost unto death, from the blighting effects of the cold and raw weather of last month, we cannot find that the mulberry tree, many thousands of which have been set out, on various parts of our island — some last year, and some the present — have experienced any disadvantage whatever. This fact adds another to the many confirmations of our belief in the excellent adaptation of the soil, situation and climate of Nantucket to the culture of this important plant. On Thursday we inspected thoroughly a plantation of four thousand white mulberry trees, owned by Mr A. Mitchell, and lying about a mile from the town. We could not discover that a single plant was destitute of evidences of life: indeed nearly every tree exhibited the most promising indications of vigor and thriftiness — while other trees and plants, in the same vicinity, were blasted, or drooping under the chills of the late rigid temperature. We learn that other and more extensive plantations are quite as healthy. Among those which were examined, were several specimens of the *morus multicaulis*, which were equally, if not more thrifty than the Italian; and we are now perfectly satisfied from what we have gathered in relation to the growth of the transplantations, that both the Chinese and Italian mulberry will in this place find a most congenial home. Other trees may also flourish here; but in the language of the old song —

—The blight often seizes both blossom and bud,
While the mildew flies over the Mulberry Tree.—*Nantucket Inq.*

THE SEASON.—The Claremont, N. H. Eagle, says: Crops promise well in this vicinity — and we hear but few complaints from the farmer. The grass is nearly twice as heavy as it was last year at this time, and grain is doing well — so, of wheat, though sown rather late. Corn appears to be rather backward, and in some places of a sickly cast, but the late rains will give it a fresh start, and on the whole, the poorest will be good. Fruit trees in the vicinity have not materially suffered from the frosts and cold of May, and though some were obliged to plant their gardens anew, we do not but see but that vegetables of every kind are as forward as at the last season. We guess the farmers will have no cause to complain when autumn and winter arrive.

RATHER BACKWARD.—The Montreal Vindicator of May, says, — It will be the end of June before planting is finished. Pastures are very backward. The orchards are not yet in blossom, nor the forest trees in full leaf. However, though the season is unusually late, we may yet have a better and more productive harvest than last year.

USEFUL ARTS.

ODIORNE NEW PUMP.—Mr Thomas Odiorne, of Portsmouth, N. H. is exhibiting at the Castle Garden bridge, a specimen of Yankee ingenuity, which it seems to us, must really be considered the *ne plus ultra* of the *pumping interest*; and we don't see as there will ever be the least necessity hereafter, of a vessel's sinking, if the owners will provide her with one of the machines. We have seen it in operation, and feel fully convinced that there is no mistake about this improvement at least. It will discharge *one hundred and twenty gallons in fifty five seconds*, merely by the application of a power less than is required at the common pump brake — thus performing very nearly four fold as much as the ordinary machine now in use. The operation, powerful and efficient as it is, is perfectly simple, consisting of two buckets alternately playing up and down the pumps — one of which is constantly pouring forth an abundant volume of water, while the other is descending by its own gravity to perform the same office the succeeding second. The ascending bucket the instant it rises to the surface and discharges its contents, is disengaged from its fellow by an ingenious, but at the same time, exceedingly simple self-acting motion, and goes down after more; rising in its turn to the top, and again descending. This invention is but just patented, and of course has not gone into general use; but it must of necessity soon do so. Mr Odiorne, we perceive has a certificate of Commodore Crane of the Navy, expressing strong approval of the plan, and we understand too, that the ship masters at the Eastward are unanimous in their opinion of its importance; but the invention does not need certificates. Every man must see at once its obvious superiority.—*L. I. Star.*

The model of an improved steamboat, invented by Daniel Gerrish of Boston, is exhibiting at Washington. The hull consists of a vast number of water tight cells, made by the crossing of the timbers. A hull of great strength is formed by this kind of frame work, which is covered with plank well caulked, and to which the upper part of the vessel, containing the ordinary apartments of a steamboat, is adjusted. The principal advantage of this mode of construction is, that in striking rocks, snags, &c. the water will only enter the cells which are perforated, and the vessel will still remain afloat. It is thought that steamboats constructed in this manner might serve a good purpose in the Florida war. The cells might be used to contain the stores of the campaign, and accidents from the snags and savages would be avoided by the peculiar mode of construction.—*N. Y. E. Post.*

MR COOKE,

I send you a few suggestions in season for those who are feeding silk worms. It is a common error to hatch more worms than our leaves will feed. The best mode of diminishing the number is to throw away those, that do not finish the process of moulting or casting the skin in forty-eight hours. The healthy vigorous worms get through in that time. The others are feeble and make imperfect or loose cocoons. You thus secure a strong stock and have strong silk.

If you cannot reel the ball in ten days after it is spun, the best mode of killing the worm is, with camphor dissolved in alcohol. Put in as much as the spirit will dissolve. Take a large coffee pot or tin pail with a close cover; put in a layer of balls and sprinkle with camphorated spirits, as you sprinkle clothes to be ironed, continue this process till the vessel is full; then close it up and set it near the fire, moving it nearer gradually till the heat causes a vapor to rise — this will pervade the whole mass and extinguish life. The gum is loosened, the balls are reeled more easily and no moths or ants, or mice will touch them afterwards.

The objection to baking is, that we are apt to bake too much, lest we should not kill the worm, the fibres of the silk are frequently injured though the color of the ball is not changed. Those that are steamed are apt to become mouldy, if not attended to, and those killed by exposure to the sun are seldom effectually *done*, for the want of three or four hot days in succession.—*Silk Grower*.

Those of our readers who intend visiting the city, on business or otherwise will find at the Franklin House, convenient accommodations, good beds, attentive waiters and an obliging host.

The House is within a stone's throw of Faneuil Hall and Quincy Market, one side opening to the Market square.

RAISING CHICKENS.

The following is a valuable article, and relates to a branch of rural economy, which deserves more attention than it has received in this country. Further favors of a similar nature from the same hand are respectfully solicited.

MR FESSENDEN,

Sir — In one of your late papers I saw mentioned a successful way of *raising chickens*.— I have been in the habit of raising them for some years, and if you think favorably of the mode I have adopted, you can insert it in your valuable paper.

I keep my hens warm under cover during the winter, and feed them on "Brewers' Grains" placed in an open box or tub, that they may eat when they please, occasionally giving them oats, corn, and oyster shells pound-

ed fine, and plenty of water — by keeping them warm and well fed, they begin laying earlier in the season. I prefer spring chickens, as they lay earlier than old hens — and the old hens to set, as they make the best mothers. I take care the eggs do not get chilled with cold, and keep them in a warm place in my house. When three or four hens want to set I put from thirteen to fifteen eggs under each of them, according to size — the day of the month marked on each egg — and after the hen has set a week or ten days I examine them by holding the eggs to a crack or knot hole in a board when the sun shines through, and if I discover any rotten ones, I take them away and replace them with fresh ones marked as before mentioned. When the chickens are all hatched I put two or three of the broods to one hen, in a coop with an opening against an empty barrel placed on the bilge, and with a little care, when put in the coop, the hen may be made to brood them at the further end of the barrel. In that way the chickens that are not covered by the hen huddle together around her, and keep each other warm. The hens from which the chickens are taken I put into another coop, and in about a fortnight they will begin to lay again. The hen being confined in the coop, will leave her chickens much earlier than if left to run at large with them, and the chickens will become so accustomed to going into the barrel and huddling together, as to be quite contented to give up the hen's brooding them. After the chickens are two or three weeks old I remove them with the coops into my garden, where they feed upon insects, so as to require but little food — but do not keep them there until they are large enough to injure the garden.

I feel persuaded that in the way I have proceeded, our market could be supplied with an abundance of poultry, and I recommend it with confidence, if managed with care and attention, as profitable to those who may engage in such business.

Charlestown, July, 1836.

☞ The following is only one of many cases we have heard, of farmers purchasing seeds, when the venders know nothing about what they were selling.

SEED.— We have heard that for a year or two past, some of our farming friends have been horridly imposed upon in their seed. Cabbage and English Turnip seed having been sold them for Ruta Baga. One of our friends will this year lose from two to three hundred dollars in his crop, as he intended to have three acres of Ruta Baga, but they have proved to be English Turnips! Men who deal in seeds should be held responsible, especially when they purchase their seeds of Tom, Dick and Harry and then sell them as genuine. We only say at present that the seeds were not purchased at the Agricultural Ware House of Mr Harlow. But unless some satisfactory explanation shall be given, we shall caution our readers against purchasing seed at the establishment where these were obtained.— *Bangor Far*.

(From Chaptal's Agricultural Chemistry.)

**ON THE CULTIVATION OF THE BEET ROOT,
AND THE EXTRACTION OF SUGAR FROM IT.**

I feel myself authorized by ten or twelve successive years of experiments and observations upon the cultivation of the beet root, and the extraction of sugar from it, to publish some results which may be relied upon.

As this new branch of industry is capable of being rendered a fruitful source of agricultural prosperity, I shall be pardoned if I enter into all the details which I consider necessary for directing the agriculturist, that he may not try such experiments and commit such mistakes, as often lead to useless expense and are always discouraging.

ON THE CULTIVATION OF THE BEET ROOT.

Beet seed is sown in the latter part of April and the beginning of May, when there is no longer any danger of the return of frost. I have sown it with good success towards the middle of the month of June; it is better, however, to sow it neither too early or too late. If it be sown immediately after the cessation of the frosts, the ground being very cold and wet, the seed does not germinate immediately, and the soil becoming hardened by the violence of the rains, does not admit the air to penetrate, so that if the seed do not decay, the beets come up badly; when sown late, they suffer from evils of another description; the rains will then be less frequent, but the great heat dries up the ground, and those soils that are rich and compact form a crust, which the tender plumule of the beet cannot pierce. Those seeds which are sown at the right season have to encounter the danger of being stifled by a host of strange plants that spring up with them, and which render weeding very expensive. The most favorable period is that when the earth, although heated by the rays of the sun, still contains sufficient moisture to produce germination, and to facilitate the growth of the young plant: the last days of April and the first fifteen days of May generally unite these advantages:

ON THE CHOICE OF SEED.

A good agriculturist should always raise his own seeds: for this purpose he will plant his beet roots in the spring in a good soil, and gather the seed in September as fast as it ripens, selecting only the best and leaving upon the stalks such as are not thoroughly ripe: each beet root will furnish from five to ten ounces of seeds.

When no care is taken in selecting the seeds, and they are sown indiscriminately, not only are many of the beets small, and ill grown, but half of the seeds sown do not yield anything.

Beets vary in color, some being white, others yellow, red, or marbled; there are even some of

which the skins are red and the substance white: it is generally known, that seed from a beet of one color does not always produce the like: a field which is sown with the seeds of yellow beets alone, will invariably yield some roots of the other colors.

Too much importance has hitherto been affixed to the color; I have never myself observed any considerable difference in the products of the different kinds; however, I cultivate from preference the yellow and the white, because the process of refining the sugar made from red beets requires a little more time; for although the lime which is employed in the first operation instantly deprives the juice of color, yet it acquires, during concentration in the boiler, a brownish tinge, which the sirup from white and that from yellow beets does not receive.

ON THE CHOICE OF SOIL.

All corn lands are more or less adapted to the cultivation of beets, but the best soils for the purpose are those that have the greatest depth of vegetable mould.

Sandy soils formed by alluvions and the deposits of rivers are also very favorable to the growth of beets, nor is any other artificial manure necessary upon spots so situated as to receive it than the mud which is periodically deposited by inundations.

Beets may be cultivated with good success upon natural or artificial grass lands; but I have always observed, that beets came up badly when sown in the spring upon such lands as had been broken up in the autumn, and ploughed two or three times during the winter: the turf and roots do not in so short a time become sufficiently decomposed; and in order to have good beet roots, I find it necessary to raise a crop of oats between the time of breaking up a meadow and sowing it with beet seed: after this I can raise two successive crops of the finest beets. If the soil of a natural grass land is dry, or not closely united, it may be sown with beet seed six months after being broken up; but I have never obtained good harvests of beets from clover lands without having first sown them with a crop of grain: In these lands the beets have always been better the second year than the first.

Dry, calcareous, and light soils are but little suited to the culture of this root.

Strong clayey soils are not well adapted to the cultivation of beets; in order that these roots may prosper, it is necessary that they should grow in a loose, fertile soil, having a bed of vegetable mould of at least twelve or fifteen inches in depth.

Beets prosper to a certain extent in all arable lands, but the quantity as well as quality of the product varies surprisingly with the nature of the

soil. Good soil will furnish 100,000 lbs. per hectare, (2 acres, 1 rood, 35 perches English;) a poor soil only from 10,000 to 20,000 lbs.

Upon several hectares of lands of very different nature which I put in cultivation each year, the average rate of production is 40,000 lbs.

The value of beets cannot be calculated by the gross weight; the large roots, which often weigh from ten to twenty pounds, contain a large proportion of water, and the specific gravity of the juice extracted from such will not be more than 5° or 6° of the hydrometer (= 1.036 to 1.044) whilst that of beets weighing a pound less will rise as high as 8° or 10° (= 1.060 to 1.075,) so that the juice of the last contains in the same volume nearly twice as much sugar as does that of the first, and the extraction of it is easier and less expensive, because less time and fuel are required for evaporation. I therefore prefer in my manufactory, beets which weigh one or two pounds, though the soil upon which I raise them should not yield me more than from 25,000 to 30,000 lbs. per hectare.

ON THE PREPARATION OF THE SOIL.

Generally speaking, I cultivate beets upon all such lands as are appropriated for sowing grain upon in the fall. The lands I prepare for receiving the seed by three good tillings, two of which are performed in the winter, and one in the spring: by this last ploughing the dung which is thrown upon the ground after the second, is mixed with it: the quantity of manure employed is the same as if the ground was to be immediately sown with wheat.

When the cultivation of the beet was less known than it is at present, it was thought that the use of dung rendered the root less rich in sugar, and more disposed to produce saltpetre; my own observations have never verified the truth of this opinion, nor have I ever perceived any other difference than that of size between beets raised in ground dressed with barn yard manure, and those raised in a soil not so prepared. That which has given rise to this error is the greater quantity of sugar contained in the same volume of small beets, in consequence of the more concentrated state of their juices.

ON THE MANNER OF SOWING BEET SEED.

Beet seed may be sown in either of the three following methods. 1. in a seed plot: 2. in drills: 3. broad cast. The first of these ways offers to the agriculturist the advantage of requiring much the least time at a season of the year when every moment is precious: the young plants may be transplanted in June before the commencement of the hay harvest, so that the cultivation of beets need not in any way impede the ordinary labors of the fields. There are however, some serious inconveniences attendant upon this mode of sow-

ing; the first of these is the care that is requisite in pulling up the young plants so as not to leave behind a portion of the root; for if a tap root be broken off, it ceases to increase in length, but grows in circumference, and throws out radicles from its surface in every direction. The second difficulty is, that if in placing the root in the earth its long and very slender point be bent upward, its growth in length is frustrated in the same manner as if it was broken off. It is however, advisable for the farmer to sow a portion of his best seed in a seed plot, in order that he may be able to fill the vacancies which will always be found in fields sown by the other methods.

But seed may be sown broad-cast in the same manner as grain, and in this case sowing may be commenced as soon as the ground has been well prepared by ploughing and rolling. The seed is covered by having a harrow passed over the ground in two directions, crossing each other. This method requires at least from eleven pounds and a half to thirteen pounds and a half of seed per hectare.

This last process is the one most generally made use of, and the one which I myself employed during seven or eight years; but I now give the preference to the method of sowing in drills, as being more sure and more economical. For this purpose, as soon as the ground is prepared, I trace upon the surface, by means of a harrow armed with four teeth, distant about eighteen inches from each other, furrows of an inch in depth; the seed is dropped into these furrows at intervals of sixteen inches, by women or girls who follow the harrow, and who cover the earth over the seeds with their hands. Each woman can sow in this manner, six or eight thousand seeds in a day.

The quantity of seed necessary in this method, is a little less than half what is required for sowing broad cast, and the weeding of the beets is much easier, and by no means so expensive.

The method of sowing beet seed which has been adopted in England, can scarcely fail of being successful: it consists in opening a deep furrow, in the bottom of which is placed a portion of the manure which is to be used on the land: a second furrow is then drawn parallel to the first and so near it that the earth thrown up shall cover that over; the second trench is prepared in the same manner as the first, and so on: the seeds being sown immediately over the manure. By this disposition of the ground the roots easily penetrate through the loose soil to the dung, which retains its moisture, and furnishes the plants with nourishment.

But whatever mode may be followed in sowing beet seed, it is necessary to observe the three following rules: first, to sow only new and naturally fertile soils: second, not to place the seed

at the depth of more than one inch ; third, not to sow the seeds too thickly.

ON THE CARE REQUIRED BY BEETS DURING THEIR VEGETATION.

There are few plants that require more care than beets: their development is greatly impeded by the neighborhood of other plants, and if the soil be not light and loose around them, they languish, turn yellow, and cease to grow.

When beet plants begin to show their second leaves, they must be weeded: if they have been sowed broad-cast, this can be done only with the hand or a small hoe or weeding fork; all the weeds must be rooted up and as many of the plants removed as will leave spaces of eighteen inches between those that remain. If the plants are sown in furrows, the plough may be passed between the rows, and the roots of the plants be cleared with the weeding fork. The same operation must be repeated at least twice in a season.

As weeding opens the earth to the free entrance of air and water, the plants may be seen to be benefited by it: the green of their leaves deepens, their roots increase in size, and their foliage expands.

Since I have sown my fields in drills I have practised passing the plough through them three times in the course of a summer, and at each time I have made thorough use of the weeding fork around the roots of the plants.

Half a day's use of the plough is sufficient for half a hectare, and the rest may be completed in a day by five or six men. I find that I save one half the expense of weeding by employing this method. Each weeding with the fork costs at least twenty francs per acre. The produce of a field which is well taken care of, is at least double that of one which is neglected.

ON THE GATHERING OF BEET ROOTS.

Beet roots are generally dug during the month of October: the digging should be completed before the commencement of the frosts. When surprised by untimely frosts, if the roots cannot readily be transported to a place of shelter, they may be collected in heaps upon the fields and covered over with their own leaves: those that remain in the earth are in much less danger from frost than those that have been dug.

The time mentioned in the preceding paragraphs is the one most suitable for the vicinity of Paris, and for the centre of France; but as vegetation is more forward in the southern departments, it is necessary that beets should there be gathered earlier in the season, otherwise the saccharine principle may disappear, in consequence of a new elaboration of the juices after maturity. The fact appears to me to have been fully ascertained by the experiments of M. Darracq. This

able chemist, in concert with the Count Dangos, Prefect of the Department of Landes, made every arrangement for the establishment of a sugar manufactory. During the months of July and August, he made experiments upon beets every eight days, and always obtained from three and a half to four per cent. of good sugar. Satisfied with these results he discontinued his experiments, in order to devote all his time to the care of his establishment; but how great was his surprise at finding towards the end of October that his beets yielded only sirup and saltpetre, and not a particle of crystallizable sugar.

Generally speaking, beets may be dug as soon as their largest leaves begin to turn yellow. If harvested before arriving at maturity, they wither, wrinkle, and grow soft; the juice is extracted from them in this state with more difficulty, and the sugar does not grain so well.

The leaves, which are separated from the roots as fast as they are taken from the ground, may be left upon the spot and there eaten by the cows, sheep or swine; but they are so abundant that there will still remain enough to serve as a half manure for the land, and it is in this soil, after having slightly ploughed it, that I sow my grains. As the earth has been manured in the spring, and afterwards freed from weeds by repeated hoeings, the corn will grow very large and be very clean; so that the first tillage and manuring serve for two harvests, and the ploughings which are given in autumn to lands appropriated to the reception of wheat or rye, are saved.

ON THE BEST METHOD OF KEEPING BEET ROOTS.

Beets are affected both by cold and heat: they freeze at a temperature one degree below the freezing point of water, and they germinate with a degree of heat but little above freezing: freezing softens them and destroys their saccharine principle, and they decay as soon as they are thawed. Heat develops the stalks of the necks of the roots, and decomposes the juices which supply their growth. During the first stages of germination, the alteration of the juices is only local, so that if the neck of the root be cut off, the remainder of it may be made use of without any inconvenience. In order to keep beets, it is necessary to preserve them both from heat and cold.

The first care of the farmer must be, to have his beets thoroughly dry before being housed. The best way is to leave them in the fields till all their dampness have evaporated. When, however, a large harvest is to be gathered in autumn, a sufficient number of fine days to effect this can hardly be hoped for, and the roots must therefore be stored for the winter in such a manner as will be most likely to prevent decomposition.

I have an immense barn, where I pile up my beets to the height of seven or eight feet. I make

use of no other precaution than that of forming against the surrounding walls a layer of straw or broom, which rises as high as the pile of roots; when the frosts set in, I cover the pile over with straw; and in this way I have for ten years preserved my crops of beets uninjured by them. It has however happened two or three times, that the roots began to germinate with so much energy, that I was fearful they would become decomposed. In these cases, I unstacked and spread the beets, and thus arrested the process of vegetation.

Some farmers leave their beets in the fields. In order to preserve them, they dig a trench in a dry soil, giving the bottom a gentle slope, that water may flow off easily. This trench they fill with the roots, and cover it over with a bed of earth a foot thick; upon this they throw heath or broom, to prevent the rain from penetrating. Some line the bottom and sides of the trench with straw or heath.

Instead of being put into trenches, the digging of which is always expensive, the beets may be preserved in the fields by forming heaps of them upon a dry soil, and covering the tops and sides with layers of earth; or they may be covered over with a roof like the one heretofore described. This method of preserving roots may be employed when there is no suitable storehouse for them; or when the means of conveying them to one in autumn are wanting.

ON THE EXTRACTION OF SUGAR FROM BEETS.

I shall not here describe the numerous difficulties that have been encountered before arriving at sure methods and certain results. I shall confine myself to the description of the simplest and most advantageous processes that are employed at this time; and I will draw my examples from my own practice, enlightened as it is by twelve years of experiment and observation, I have successfully executed all the known processes; and I have tried all the improvements that have been suggested: I have myself regulated and improved some of the processes; and I shall describe only such as I have proved and confirmed.

ON THE PREPARATION OF THE ROOTS.

Before subjecting the beets to the teeth of the rasp, they must be carefully freed from all the earth which they bring with them from the fields. The necks, and any portion that has begun to decay, must be cut off, and the radicles removed from the surface.

In many manufactories, nothing more is done to the roots than to wash them. But this operation cannot be conveniently practised in all places, and I have therefore dispensed with it as a preliminary; nor have I found any bad effect to arise from the omission of it. Eight women can easily prepare 10,000 lbs. of the roots in a day. If the

beets are large and retain but little earth about them, the same number of women can prepare in the same time from 15 to 20,000 lbs.

ON THE METHOD OF RASPING THE BEET ROOT.

The beets, when well cleansed, are submitted to the action of a rasp, by which their fibrous substance is reduced to a pulp. The rasp is worked either by a horse, or by a stream of water. The rapidity of its motion should be equal to four hundred revolutions upon its axis in a minute.

The rasps used by me, are sheet-iron cylinders, fifteen inches in length and twentyfour in diameter, having their surfaces furnished with ninety iron plates armed with saw teeth and fixed by screws perpendicularly to the axis of the cylinder and throughout the whole length of it.

The beets being pressed against the rasp, by means of a piece of wood held in the hand, are immediately torn in pieces. The pulp falls into a box lined with lead, which is placed beneath. The table upon which the beets destined to the rasp are placed, is so near the instrument as to allow only sufficient space between for the passage of the pulp.

The operation of rasping must be conducted expeditiously, otherwise the pulp begins to turn brown, fermentation takes place, and the extraction of the sugar is rendered difficult. By the use of two rasps, put in motion by the same horse, I have reduced 5000 pounds of beets to a pulp in two hours. The pulp should not contain any portions of roots that have not been acted upon by the instrument.

Compression will not in any degree supply the place of rasping. The strongest presses can never extract from beets more than from 40-100 to 50-100 of their juice, whilst the pulp, if properly managed, will yield from 75-100 to 80-100.

ON THE EXTRACTION OF THE JUICE.

As fast as the pulp falls into the box placed under the rasps, it is put into small bags made of very strong cloth woven of pack thread. These bags are placed upon the plate of a good iron screw press and submitted to a strong pressure. The screws are after a time to be loosened, the places of the sack changed, the pulp which they contain shaken over, and the whole again submitted to the action of the screw.

Sometimes the pulp is first acted upon by a cylindrical press, by which about 60-100 of its juice is extracted, and the operation is afterwards completed by means of the screw press. But 10,000 pounds of beets may be pressed in a day by the last alone.

The pressure should be continued till the pulp will not moisten the hand when strongly squeezed in it. The juice which flows from the press, is carried by leaden pipes into the boiler, where it

undergoes the first operation. Of this I shall speak immediately.

If an iron screw press is not to be had, a wine press, a lever press, or a cylinder press will answer the purpose.

The operation of the press should be completed nearly at the same time with that of the rasp. Everything that has been moistened with the juice, must then be washed so as to be ready for a new operation. The utmost cleanliness must be preserved, otherwise the rasps will become rusty, the juice will change, and the boiling will be rendered difficult.

The juice extracted from beets, is not always of the same degree of concentration. It varies from 5° to 10°, (=specific gravity of 1.036 to 1.075,) according to the size of the roots, the nature of the soil in which they grew, and the state of atmosphere during vegetation.

The juice of the large roots is less concentrated than that of the small ones. The juice of such as grow in a light soil, and have been exposed to heat and drought, marks 11°, (=specific gravity of 1.083;) but there is but little of it. The greater the specific gravity of the juice is, the greater is the proportion of sugar contained in it; and, of course, the greater is the saving of labor in the extraction of the sugar.

ON THE PURIFICATION OF THE JUICE.

As soon as the boiler which receives the juice is one third full, the fire is kindled; and as the juice continues to flow, the heat is raised to 65° of Reannur, (=180 3-4° of Fahrenheit.) I have worked 10,000 pounds of beet roots per day, at two operations of 5,000 pounds each. The first began at 4 o'clock, A. M., and the other at noon. The round boiler, which received the juice of one operation, was five feet and six inches in diameter, and three feet eight inches in depth. I had a separate boiler for each operation, and each boiler had two stop-cocks, one close to the bottom and the other five inches above. Between these two boilers, there were two vessels fifteen inches deep, and each of sufficient capacity to receive the juice of an operation. In these, evaporation is carried on. The rims of all the boilers should be very wide, so as to cover the thickness of the wall in which they are set.

My rasps and presses are placed upon the first floor, in order that the juice may flow through leaden pipes into the boilers, which are upon the ground floor, and thus save the labor of transportation. By this arrangement, I can have my depuratory boilers so much raised, that upon turning the stop-cocks, the juice will flow into the evaporating vessels.

Whilst the juice is heating, some milk of lime is prepared by pouring gradually some warm water into a bucket containing ten pounds of lime.

My boiler contains 475 1-2 gallons of juice, so that I employ the lime in the proportion of about 46 grains troy.

As soon as all the juice has passed into the boiler, and become heated to the degree mentioned in the last paragraph, the milk of the lime is thrown into it, the greatest care being taken to stir and mix them well together; after which the temperature may be raised to the boiling point. As soon as the first bubble makes its appearance through the thick, glutinous scum which rises upon the top of the liquor, the fire is immediately extinguished by throwing a pailful of water into the fireplace. The scum thickens, dries, and hardens by rest. The juice becomes clear, and takes a light yellow hue. When there can no longer be seen in it particles either of lime or mucilage, the scum is removed with a skimmer and thrown into the bucket, in order that the juice which it contains may be expressed. The upper stop-cock is then opened, and the liquor is suffered to flow into the evaporating boiler,

The juice does not become clear in less than an hour, and evaporation ought not to be commenced till it is perfectly limpid.

As soon as all the liquor above the level of the upper stop-cock has passed out, the second stop-cock is turned; and if the liquor flowing through that be found clear, it is mixed with the first portion. If on the contrary, it appears cloudy, the stop-cock is again closed to give it time to settle, and it is not made use of till towards the termination of the evaporation.

The deposit which is formed at the bottom of the boiler, renders the last portion of the juice turbid. But as soon as this is seen to be the case, that which remains is drawn off into the bucket containing the scum.

The deposit which is formed at the bottom of the boiler, and this scum, are expressed by means of a lever press of very simple and cheap construction, and which is very easily worked.

I place a cylindrical willow basket upon a block of stone three feet square, the upper surface of which is slightly inclined and furrowed with channels an inch deep uniting in a common centre at the lowest angle. The basket is lined with a bag of coarse cloth, the end of which turns back and hangs down. Into this bag I put the deposit and scum; then drawing the edges of it together, I tie the mouth closely with a packthread. I place on the top a wooden trencher of the diameter of the inside of the basket. This I load with several square pieces of wood, which project over the upper part and serve as a fulcrum for the lever. When things are thus far arranged, I proceed to adjust the lever, which is five feet long. This is fixed at one end to a ring-bolt, which passes through a stone. The other end I load with

weights to the amount of from 56 to 112 pounds, increasing them at pleasure, so as to produce a gradual and constantly increasing pressure, which may be rendered as powerful as is necessary. The juice which is thus forced out, flows into a bucket and is thrown into the evaporating vessel.

The most difficult operation to be performed, is that of purifying the juice; and if this be not thoroughly done, the processes of evaporation and graining are long and troublesome: the juice swells and bubbles up in the boiler, and the sugar crystallizes imperfectly and remains mixed with molasses. The lime which is thrown in to clarify the juice, does not always rise to the top with the scum, by a prolonged period of rest in the depuratory boiler, neither is it always precipitated. It sometimes happens, that, notwithstanding all the care that can be taken, the liquor remains cloudy; and in such cases it is always in vain to look for good results. I have endeavored to ascertain the cause of these accidents, and I have sought to remedy the evil. I shall report here only what appears to me to be fully established by experiment and observation.

The juice does not purify well if the beets have begun to germinate too strongly, or if they have begun to decay, or have been frozen.

When the operations of the rasps and presses are conducted too slowly, so that the juice stands five or six hours before being purified, decomposition commences, and good results are never obtained.

If all the utensils employed are not carefully washed after each operation, so as to free them thoroughly from the juice adhering to them, the labor becomes difficult and unsuccessful.

I found, upon one occasion, that beets which had been kept in a cellar, where they had neither frozen or germinated, did not, when subjected to experiment in March, yield sugar. They appeared perfectly healthy, though a little softer than those that had been kept in barns.

If the first operations are not well conducted, the results are always bad. I can only point out the steps that can be taken to prevent this.

Beets, that have been well kept, may be worked with equal good success from the beginning of October to the end of March.

When the juice does not become clear, a small quantity of sulphuric acid may be thrown into the evaporating vessel, a little before the liquor begins to boil. This will remedy any trouble arising from the use of too large a quantity of lime. It will however, be useless, if the faults proceed from an altered state of the beet juice.

By making use of a portion of animal charcoal to clarify the liquor, the evaporation of the juice and the graining of the sugar is sure to be ren-

dered more easy; but the quantity of sugar obtained is very small.

The lime used in the process of purification combines with the mucilaginous principle of the beets, and neutralizes the malic acid contained in them; after this operation, the juice weighs 12 or 1.5° less than before.

(To be continued.)

FANEUIL HALL VEGETABLE MARKET. July 27.

Green Peas, 1 00 per bushel. New Potatoes, 1 50 to 2 00 per bushel. String Beans, 2 00 to 2 50 per bushel. Turnips, 6 to 8 cts. per bunch. Radishes, 3 to 4 cts. per bunch. Carrots, 6 to 8 cts. per bunch. Cucumbers, 50 to 75 cts. doz. Lettuce, 4 to 6 cts. per head. Onions, 6 to 8 cts. per bunch. Rhubarb, 5 to 8 cts. per lb. Cabbages, 6 to 8 cts. each. Tomatoes, 4 to 6 cts. each. Beets, 5 to 6 cts. per bunch.

FRUIT.—Strawberries, 15¢ to 37 cts. per box. Cherries, 12 to 20 cts. per qt. Gooseberries, 12 to 20 per qt. Currants, 6 to 8 c. per qt. Raspberries 31 to 50 c. per box. Blueberries, 17 to 25 cts. per qt. Greenhouse Grapes, \$1 00 per lb. Pears, 3 50 to 4 00 per bushel. Peaches, (greenhouse) 12 to 37 cts. each.

BRIGHTON MARKET.—MONDAY, JULY 25, 1836.

Reported for the Daily Advertiser & Patriot.

At market 315 Beef Cattle, 20 Cows and Calves, and about 1600 Sheep.

PRICES — *Beef Cattle* — Last week's were fully supported. We quote a few extra and extra fine taken at 6 75 a 7 25; second quality \$6 a 6 50; third quality \$5 a 5 75.

Cows and Calves — Sales were made at \$22, 27, 28, 31, and \$40.

Sheep and Lambs — Sales quick; nearly all was purchased before they arrived at market. We notice lots taken at 2, 2 25, 2 50, 2 75, \$3, and 3 25. Wethers at 3 50, 3 75 and \$4.

Swine — None at market.

FRESH TURNIP SEED.

Just received at the New England Seed Store a quantity of White Flat English Turnip, for fall sowing.

COCOONS WANTED,

The proprietors of the New England Seed Store, connected with the New England Farmer, are ready to purchase *Silk Cocoons* in any quantity, for which the highest market price will be paid. June 22.

BOUND VOLUMES OF THE SILK MANUAL.

For sale at the Agricultural Warehouse and New England Seed store, the first volume of the *Silk Manual and Practical Farmer*, neatly bound. Price 62½ cents.

The book contains 192 pages, and a great amount of valuable information on the subject of *Silk Culture*. It is decidedly the cheapest book, extant, that treats upon that subject May 4.

WANTED.

A man to work, for a few months, on a place five mile from Boston. Apply at this office. July 20.

FESSENDEN'S

SILK MANUFACTURE

AND

PRACTICAL FARMER

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. II.

BOSTON, AUGUST, 1836

NO 4.

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BOSTON, AUGUST, 1836.

(From the Northampton Courier.)

Extract from Gen. Tallmadge's Correspondence.

CULTIVATION OF SILK, &c. IN FRANCE.

PARIS, April 9, 1836.

"I have had the pleasure to attend, by invitation, at two meetings of the National Institute of France. It is a noble assemblage of scientific men, and a source of continual benefit to the public weal. A small sum, about 200 dollars, is allowed by the government to each member for his attendance at the weekly meetings, and for which the Institute returns answers to the government when required, upon questions connected with the arts and sciences, including agriculture, manufactures and the kindred branches. I have also attended a meeting of the Agricultural Society, and was present at the awarding of the premiums for the services of the last year, and found it not only interesting, but a fund of useful information. I send you their *Programme* of their proceedings, as also of the subjects and prizes offered for the next year. This paper will afford useful suggestions to the American Institute.

The public institutions of France are open and accessible to strangers, and are a matter of just pride to the nation. The specimens in mechanics are curious and useful. There is a *Swede* here, now a denizen of France, who claims to have made an essential improvement upon the steam engine. His proposition is to dispense with the steam boiler, fire and its attendant fixtures, and to adapt to a common high pressure engine, the use

of *ammoniacal gas* as an efficient power. It is alleged that this gas can be prepared in reservoirs, so as to come in place of fuel, at a cheaper rate, with an exemption of all danger of explosion, and a great saving of the space for the engine and its fixtures. It is insisted there will be a saving of at least one half in expense, as well as in space. He has shown me his model. He has obtained a patent for England, and also for France, and he intends to sail in a few weeks for New York, with a view to obtain a like patent in our country.

Many questions of interest under our patent laws have been propounded to me here, and, among other things, it is noticed that while England and France open their patent privileges to all the world, America limits hers to her citizens, or to *resident aliens intending to become citizens*.

I have visited the anatomical museums and medical establishments, and attended operations at the hospitals. Very many opportunities are offered to medical students; and when we cast a look, in comparison, to New York, who will not breathe a sigh, that bad organization and personal feuds, should have so long prevented a like growing institution in our city, where I insist there is equal talent and more enterprise. We have heard so much *pro and con* in relation to Monsieur Se-viale's new process of Lithotomy, that I have made his acquaintance and witnessed his operations on both male and female patients. The stone was successively broken and extracted, and the patients arose and walked away almost uninjured. The operation is not often very severe or painful. I have full confidence in his improved plan, and his instruments, if they are not abused in conceited or unskillful hands. I was gratified to find among the spectators two or three medical young men from our country.

I send you a report of M. Bodin on the agriculture of France. These papers demonstrate the great interest felt in France in the improvement of its agriculture; and it appears to be increasing in its general prosperity. It is often said, that the husband with his vineyard, and the wife with the silkworms, are at present the best sources of na-

tional wealth. Much pains are taken to improve the culture of silk; it has hitherto been carried on almost entirely in Italy and principally in France, by private and individual industry, and supposed to be unskilfully and imperfectly conducted. The government have established three model farms, for the purpose of various experiments in agriculture, and especially in silk. I have been in the interior to visit one of those farms, and was permitted to examine its details. A separate house is prepared for feeding the silk worms, which is heated by a furnace, its heat regulated by a thermometer, and its ventilation attended to with care and system. M. Beauvais, its director, states, that 1 oz. of eggs will produce in India 20 lbs. of silk; in Italy, 5 to 6 lbs. do.; in France, 5 lbs. That this great difference of product arises from care and skill and treatment. That he has last year, in his experiments, increased the product up to thirteen pounds, and is confident of a greater increase this year. He thinks a dry and cool climate is best, and that the room should be made equal in temperature by heat and ventilation. I have observed with care his model fixtures as to the frames, heat and ventilation.—The worms are here fed by leaves, put on a net suited to the frames, and which is to be laid over them: the worms soon ascend to the new leaves, and can then be removed on the net and the frame cleaned. When the leaves of different kinds of mulberry are mixed together, the worms will select and gather on the *Chinese* mulberry, and yet it is not a settled point here in what consists the superiority of the Chinese over the other kinds of mulberry. The model plantation of trees is planted in rows of 12 feet apart. The trees are six feet apart, in the rows, and are cut down so as to have four or six sprouts from near the ground, and these in after years are cut off so as to be kept dwarfed for use in picking the leaves. It is believed an acre or two, thus allotted to trees, and near the house, will give such facilities and product, as to make the best result, and so it appears to me. The Chinese mulberry will sprout from cuttings about six inches long, and set in a row four inches distant. I have visited one garden where 50,000 are just set out in this manner, and where 20,000 were thus raised last year, and have been sold, and, as is said, to the American market. The French farmers have no aptitude to change, and comparatively few Chinese mulberries are set out in France. If the nurserymen are to be credited, they have sold, this last year, one hundred trees for America for ten transplanted here. From my own observation I believe it to be the case.

M. Beauvais has tried, with profit a room heated to 18 and 20 degrees (Reaumur) and says 28 and 30 is used in India. M. Beauvais and several

other growers of silk, whom I had seen in the country, have since visited me at my rooms in this city, and have communicated freely with me. There is often discrepancy in their statements and opinions, and their allegations will only serve as clues to enquiry; but I trust the safe common sense and keen observation of our people will soon understand, as a science, the growing of silk much better than Europeans, who, after the experience of ages, act more from usage and habit than skill and experience. I have entire confidence in the full success of our people in the culture of silk. Most of the gentlemen I have alluded to, have agreed in the opinion that a warm climate is not so good as a regulated room; and one of the gentlemen, of experience, says he constantly uses plates with *chlorine* in the room to purify the atmosphere, and without injury to the worms. Some doubt establishments for feeding the worms, and prefer private industry in family rooms. All agree that a damp climate is injurious, and therefore say that silk does not prosper near the ocean, where the damp westerly winds prevail;—and they express an opinion that our warm and dry summer climate is admirably fitted for the business of silk in families as well as in Establishments. France is found to produce not more than one half the silk she manufactures; it is purchased from Italy and the Archipelago.—Her thirtythree millions of inhabitants cannot afford space sufficient for the mulberry trees to supply her own wants. Our country is exempt from this difficulty. Various books or manuals of instruction in the culture of silk, have been published here for the use of families. I have collected them, and shall endeavor to bring them with me for the library of the Institute. I must omit further details till an opportunity for personal explanation.

CHINESE MULBERRY,

The time having arrived for laying down the Chinese Mulberry, the following extract of a letter dated Sept. 1835, from a gentleman who is practically acquainted with the business, may be of use to new beginners:

The manner of putting down the mulberry and covering the branches with earth, is bad, decidedly bad. Many of them rotted, some wholly and some in part only. I put them down in various ways—some I put down with the tops out—some with the tops covered, and some I broke off—the last did the best. Now the way to do the thing as it should be done, is this—I know by experience, and one grain of experience is worth a pound of speculation.

Bend the shoot flat to the ground, nip off the tip or top, mind that—secure it with forked sticks and do not put any earth upon the branch, (except

where the buds have just started.) The buds will shoot upwards with great rapidity, and when about one inch high, then cover the stalk lightly with earth, and the fibrous roots will immediately shoot downward, in every direction—this I know. In this way, there is not the least danger of smothering the plants or buds.

Remember, the top must be nipped off, or the plant will grow from that end only, and the buds will not grow so well. I have found that covering the plant or branch with the earth, when first laid down, is a great error, at least I think so, with all due deference to your better judgment and experience.—*Courier*.

SILK WORMS are feeding now and some of them winding their cocoons. The ordinary method is to lay branches over the worms or set broom brush upright and they will find a position to their own taste. After they have finished winding, those cocoons to be used for reeling must be boiled in hot water a few hours or laid in the sun three or four days, as the moths will come out in about ten days, if not destroyed, and spoil the cocoon. Those cocoons which are intended for seed, should be of the largest size and bright color and firm to the touch. They should be laid away carefully, and in ten or fifteen days, according to the weather, the moths will come out. The male is known by his small size and the continual fluttering of his wings. The female is larger and seldom moves. They should be taken in pairs and put upon sheets of paper and in about twentyfour hours, the female lays three or four hundred eggs. They should be laid away carefully, rolled up, as they adhere to the paper. The moths die soon after the eggs are laid.—*Northampton Courier*.

(From the Northampton Courier.)

Extract from Gen. Tallmadge's Letters in Europe.
SILK AND MULBERRY TREES.

April 6, 1836.

In my last letter from Naples, I believe I promised to say something more on the cultivation of silk. I have since travelled through Italy, and especially in the silk districts, and also through France, and have visited many of the manufactories in both countries, endeavoring to learn the details of this subject, now so interesting, and, I think, so essential to our country. The limits of a letter, will, however, confine me to a few isolated remarks.

The weaving of silk, after it gets into skeins, is like any other weaving of like character; it is the production of silk and the habit of growing it, that must be acquired by our country; and it is, in this view, a mine of boundless wealth, not

second even to the production of cotton. The country which so lately surprised Europe by sending eight bales of cotton to its market, and now astonishes the world with its countless thousands, may soon exhibit a like wonder in the production of silk.

In Calabria, which is in the south of Italy, the black mulberry is principally used. In the rest of Italy, the white mulberry, common to them and France, is principally used. The north of Italy, that is between the Alps and Appenines, produces the best and most silk. In this region, and especially in Sardinia, near Turin, and at Novi, the English and French are competitors in market, to purchase their silk as the best in the world; and yet on the 9th of March, the snow was one foot and a half deep, and the streets of Novi blocked up like our Cedar street! In Calabria, the silk is produced by the country people, in their families, and mostly reeled by them.—There are very few factories for reeling in the Neopolitan kingdom. In Lombardy, and towards Venice, there are also establishments for reeling, yet the greater part is reeled by the families, in detail, and brought to market in the skein. In Sardinia the cocoons are mostly reeled in establishments. At Novi their reeling establishments are numerous—I saw one, now erecting, which is a quadrangle two hundred feet square, and appropriated solely to reeling cocoons. They are purchased from up near Milan and many miles distant. This is admitted to be the best silk in the world. The red mulberry is here principally used, and is known as the Calabria mulberry. It is described as having a dark fruit; the tree is like our black; and when I called it black mulberry, I was corrected, and was told the stain of the fruit was red and not black, and which gave the character of the tree. The French, in addition to the white mulberry, have a dwarf white, much liked, and getting into use; but, it must be remembered, there is not in France, and scarcely in Italy, a fence, and they do not graze their fields as we do. With our habit of pasturage, the dwarf would be inadmissible. The Chinese mulberry is unknown in Italy. I found only a few young engrafted trees, but no experiments there, to be relied upon, to establish its superior utility.

In Italy, and in France, the mulberry is generally planted near the houses, along the road side, by division fences and often like an open orchard. The trees are formed like a middle sized apple tree. Its shade does not injure the land. The tree in Italy is usually made to sustain a grape vine and the field is cultivated for wheat and other crops. There is less discrimination here than you would imagine in the kind of mulberry. The

French have made experiments, especially on the Chinese; and the opinion seems to be, that the Chinese mulberry will bear to have its leaves picked twice off, and thus produce two crops of silk in one year. As yet, however, there is not much use made of the Chinese mulberry, and even here, the grower of silk cannot answer as to its virtues;—but the answer is often given to me, that, as to the quality and quantity of silk, it is the same as any other mulberry; and that the quality of the silk depends on the treatment of the worm, and the care and skill in reeling. They pay less attention to the kind of mulberry on which it is fed than we expect. They have also white, and use it. Habit directs more in Europe than with us, and therefore I urge that our people make experiments for themselves. They should neither take nor reject any thing too quick upon European experience. Climate and circumstances may produce a different result, and the alleged experiments of Europe may have been incorrectly and inadequately tried.

It is a peculiar and important circumstance in favor of the adaptation and fitness of our climate to the culture of silk, that, with us, the silk worm is produced at the beginning of warm weather, in May and June, by the natural temperature of the season, while in Europe, especially in Italy and France, it is produced only by artificial temperature and means. The fact is a volume in promise of our country. Fires and a thermometer are not used in the south of Italy to secure an equal temperature in the rooms of the worms, nor much used in the north of Italy unless in the region of some snow-capped mountain, or where other circumstances produce sudden inequalities of temperature. It is the same as to the south and north of France.

The implements of husbandry, in either Italy or France, offer not much for the American farmer. Their lands are mostly cultivated with the spade and manual labor, and when the plough is used, it is the old fashioned plough on a pair of wheels. Their crops and their cultivation are so different from ours, that very little can be learned from them useful to us. Silk, wine and wheat, are their staple productions, and to an almost incredible extent: so it is in France, where the manner of cultivation, and implements of husbandry are much the same. Wheat is now so abundant in Italy and France, and the price so low, I found them the other day, at Marseilles, shipping wheat for the New York market! and they would do the same from all parts of Italy, but for their lack of commercial enterprise. Our farmers are now sheltered by a protecting duty, otherwise their crops would moulder in their barns; and even New York be furnished with bread from a foreign market. They have felt se-

cure in their production, and have not regarded, as necessary to themselves, the system of protection for our domestic products. Should peace continue a few years longer in Europe, such is the surcharge of labor and power of production, that every product of American agriculture will find foreign competition, even in our own markets at home. The wheat, both in Italy and France, greatly surprised me:—the quantity is immense, and greatly beyond my belief till actual observation; and I have travelled eight or nine hundred miles in France, and have nowhere found sour, dark or imperfect bread. Can we do and say the same in our country? The bread of France certainly has a decided superiority over ours.

The agriculture of France is in fine condition, and second to that only of England. It has every abundance and the people appear prosperous and happy. The Olive is a valuable addition to the production of Italy and France. Our climate will not, perhaps, favor the tree, at least in the northern states; yet it is of so much value, it should be encouraged. The olive can successfully be grafted on the ash tree, and thus, perhaps, it might be acclimated with us. Some such trees, grafted on the ash, are said to be growing at Pistoia, about twenty miles from Florence.—There is no inducement in France or Italy, thus to engraft the olive, but the hint is certainly worthy the attention of our nurserymen and of our country.

Great efforts are made in France to advance the condition of its agriculture. It is ascertained that the increased use of the potatoe has diminished the consumption of wheat for bread. The raising of the beet root for the production of sugar, has, as one of its principal objects the supplying a new production for the benefit of the farmer. For the same reason the growing of madder is encouraged, and the production of the beet and madder come in great relief to agriculture, and are made new sources of public wealth. Our farmers certainly merit the like fostering care and assistance.

I have before mentioned the use of the natural current of the principal rivers and streams of the continent as a water power for manufacturing objects, and I have no doubt but the current in the East river at New York may be used for the same purposes. At Lyons, a water wheel is thus turned, and works a forcing pump, which drives up the water of the pier about three hundred feet to a reservoir in a public garden; it there forms a *jet d'eau* and falls into a marble basin, which serves as a fountain in case of fire, and its overflow washes the streets. It is attended and worked by one man, and might be recommended for adoption at New York.

PORK.

MR EDITOR :—

I consider the ideas brought to view by your correspondents in No. 17, 18, and 23, of your first volume, at pages 131, 130, and 180, respecting the propriety of Farmers keeping more Swine, than is generally kept, so important to the agricultural interest, that I hope we Farmers shall look over their reasoning and remarks once more, at least. That they may be easily turned to, by those who have not the bound volume, I have named the numbers of the papers, and for those who have the volume I have noted the pages, where the several writers' ideas may be found; they urge the propriety of Farmers keeping more swine, first, because that any given quantity of pounds of *pork* can be raised at less expense than the same number of pounds of good *beef*, which I have no doubt of; secondly, because swine's manure is preferable to that of other animals, and that by placing in their reach thistles, mud, and oats, they make more, &c. &c.

But the writers seem to make their calculations on potatoes as much of the food of store swine. Experience has since shown that other equally valuable as potatoes, can be furnished them at less expense. Apples, and Ruta Baga, have been found as valuable, and double the number of bushels of the latter vegetable can generally be raised on a given quantity of land compared with potatoes, and no doubt they are worth as much bushel for bushel, for store swine, as potatoes, and a given quantity of land can be tilled, and the roots taken care of, at about the same expense, reckoning the cost of seed, &c. Again, if swine are kept in pens, or yards, clover grass mowed and thrown in green is good food for them, and if a farmer has a piece of land contiguous to his hog pen, this will be found a great saving of roots—but he may turn them out in a clover pasture several months in summer, and they will there grow, and thrive. This I should not advise unless it be in an orchard, or on land soon to be ploughed, because there would be some waste of manure. By keeping many swine is not meant to keep more than the farmer can keep without their suffering with hunger, and then they will be of fair size. When put up to fat let their food be cooked or soaked. Oats and peas will fatten them fast. I would not recommend giving them much Indian corn, or meal, made of it, but a little toward the close of the fattening, produces the hardest, and most palatable Pork. Clear pork is now from 25 to 30 dollars the barrel, in Boston, and generally in Maine. A farmer cannot go into a more profitable mode of making money, and certainly he may enrich his farm by it.

I would suggest, that it is never profitable to winter early pigs—they should be such as are

farrowed in September, or the early part of October, kept warm in winter. Such will need but little expense in wintering, and they will make fine hogs the next fall; whereas early ones, cost very considerable the first summer, more in winter, and will be very little better the subsequent fall when slaughtered. Early pigs should always be killed the fall, or early part of the first winter, after they are farrowed; by some, they are thought to produce pork, at as little expense as any; I think otherwise, as they cost nearly as much in fattening, and large swine always bring most in the market.—*Maine Far.*

TO CURE THE SWELLING OF THE THROAT IN HOGS.—In order to contribute to the usefulness of your valuable periodical, and to inform the public what I find from experience to be an infallible cure for a certain disease in hogs, viz. the swelling of the throat, I herewith send you a receipt for the disease with a desire that you publish the same in your work if you deem it of any import and the same meets your approbation.

Take of molasses one half pint and a table spoon full of hogs' lard—to this add of brimstone a piece an inch in length. Melt it over the fire, and when cold or in a liquid state, drench the hog with it; and nine times out of ten it will be found to have the desired effect. My hogs were affected with this disease during the past year, and I found the above to be effective when all things else failed.—*Far. Reg.*

NOTE.—We have no doubt as to the efficacy of the above prescription, but the trouble of melting the brimstone can just as well be avoided, by substituting flower of sulphur for the roll brimstone, and we have no question that if a tea-spoonful of cayenne or black pepper were added, the prescription would prove much more prompt in its curative effects. The compound of molasses, hogs' lard and brimstone, can only act in their combined form as aperient and cooling; but if the cayenne should be added, a decided improvement so far as the swelling of the throat may be concerned, would be effected, it would then act as a stimulant upon the indurated glands of the throat, thus giving them resolution and enabling them to resume their wonted action, and take up the superabundant secretions, and thus restore a healthful condition to the affected parts.—*Editor of the Maine Farmer.*

A MAMMOTH HORSE.—There is now at the stable of Capt. Thomas, of the Burlington Hotel, a horse, recently imported from England, 5 years old and well made that weighs 1750 lbs.—*Burlington Sentinel.*

BEET ROOT.

(Continued.)

As soon as the bottom of the evaporating vessel is covered with juice, the fire is kindled, and ebullition is produced as speedily as possible,—the juice which continues to flow from the clarifying boiler supplying the loss occasioned by evaporation.

When the boiling juice marks 5° or 6° ($=1.036$ to 1.044) of concentration, a portion of animal charcoal is thrown in, and this is continued, the quantity being gradually increased, till the juice is concentrated to 20° ($=1.161$.) Sixty pounds of charcoal are used in this manner, for a quantity of juice equal to from 422 to 475 gallons.

After having brought the liquor to the twentieth degree of concentration, the boiling is continued till the sirup marks 27 or 28° of the hydrometer, ($=$ specific gravity of 1.231 to 1.242.) The sirup being mixed with animal charcoal, requires to be filtrated. This operation, as it is usually performed, is very tedious, and sometimes becomes impracticable; the consistency of the sirup is increased two or three degrees by cooling, and the pores of the filter becoming in a short time, obstructed by the finely divided charcoal, the thickened liquor can no longer pass through them.

To obviate these inconveniences I place a large willow basket over a boiler: into the basket I put a coarse bag of the same diameter, but about two feet deeper. I pour the thickened sirup into the bag; for some minutes filtration goes on very well, but as the liquor grows thick in consequence of its cooling, filtration slackens and at length stops; as soon as I perceive this, I turn the borders of the sack into the basket, and upon them place a wooden trencher, which I gradually load with cast iron weights till the necessary pressure is produced; filtration is by this means completed in two or three hours.

The charcoal contained in the sack is leached with warm water, and afterwards submitted to the lever press to force from it all the sirup contained in it. The waters used for these leachings during one day, are the next day mixed in the clarifying boiler with the juices that are then prepared.

The conversion of the juice into sirup should be done as speedily as possible; for when evaporation is slow the liquid becomes pasty, as part of the sugar is decomposed and passes to the state of molasses, and the difficulty of boiling is increased. It is necessary then that evaporation should be carried on with violent boiling, and for this reason the boilers made use of should be broad and shallow, so as to heat only layers of the liquor, and in order that ebullition may take place at once through the whole mass of the liquid; the furnaces like-

wise should be so built as to heat the boilers equally. The evaporation of 422 gallons should be completed in four hours.

The operation is known to be good and the juice to have been well prepared, when ebullition takes place without causing the liquor to swell and blister; when there appears on the surface only a brownish foam, the bubbles of which disappear immediately upon being pressed with a spoon, and when a dry sound is produced by striking upon the liquor.

If, on the contrary, there forms a whitish, gluey foam, which does not subside, the operation is bad; evaporation requires a long time and the boiling is difficult. In this case a little butter is, from time to time, thrown upon the surface to quiet the effervescence; the quantity of animal charcoal is increased, and the fire is checked. All these palliatives, however, do not correct the radical fault, and such appearances always presage bad results.

ON BOILING THE SIRUP.

The sirups prepared over night are the next day dried to extract the sugar from them.

The products of two operations upon 5000 beets are mixed together in a boiler, whence they are taken to form four successive dryings or boilings. One fourth part of these sirups is thrown into a round boiler, forty inches in diameter and twenty in depth; under this a fire is kindled; the liquor is made to boil, and the boiling continued till the operation is ended.

The process is judged to be going on well if the liquor exhibits the following symptoms.

1. When the sirup breaks short, and the bubbles upon returning into it produce a sensible sound.

2. When a dry sound, like that produced by striking silk, is returned from the surface of the sirup, when it is struck with a skimmer.

2. When the bubbles of foam disappear immediately upon being pressed with a spoon. The boiling is always perfect when the interior surface of the boiler is found, after the operation is ended, to retain no trace of blackness.

The sirup is known to be bad by the following signs:

1. When a thick, whitish, gluey foam appears upon the surface of the liquor.

2. When the liquor swells and foams, and does not subside.

3. When the escape of puffs of acid steam announces that the boiling substance is burnt.

The evils are palliated and the boiling terminated,

1. By removing the foam as fast as it forms.
2. By throwing into the substance small pieces of butter.

3. By stirring the liquor with a large spatula.
4. By mixing with it a little animal charcoal.
5. By moderating the heat.

To avoid a portion of these evils, I throw a flood of sirup into the boiler, and remove the whitish foam that arises; I stir the sirup strongly three or four times before boiling commences, and skim it each time. The scum that is removed is thrown into a bucket with that which is produced during all the time that the liquor is boiling; these skimmings are afterwards subjected to the lever press, and the remainder washed, to obtain from it all the juice contained in it. The sirup obtained by pressing upon one day is added to the liquor that is boiled the next, and the water of the leaching is thrown into the evaporating boiler.

When the syrup in the drying vessel shows itself to be bad, especially when it gives out puffs of sharp steam, which declare the substance to be burnt, it is necessary to arrest the process and to treat the sirup with an additional portion of animal charcoal. In this case the liquor is diluted with water till it falls to 18 or 20^o of concentration, (=specific gravity of 1.143 to 1.161,) and then the charcoal is added; after which ebullition is renewed till the sirup rises to 28^o, (=1.242,) when it is filtered and dried. I have found this to be the only way in which I could restore a sirup which had been injured in the process.

I have myself made particular observations upon the thick, whitish, unctuous and paste-like substance, which is almost always found upon the sirup, and which, when it is abundant, prevents the drying from being well terminated. This substance renders the sirup ropy, adheres to the sides of the boiler, which are blackened by it, separates itself from the sirup, in proportion to its concentration, and prevents the object proposed from being attained.

I have noticed that the quantity of this substance was in proportion to the germination of the roots, and that it was increased by the incomplete purification of the sirup, and also by a slow evaporation. Animal charcoal produces an astonishing effect in lessening the quantity of it; sometimes, if well employed, the formation of it is prevented, or that which is produced is made to disappear.

This substance, which during the first years of my establishment, I often collected in large quantities, is thickened and hardened by cold; it is insoluble in water or alcohol: it burns with a white and inodorous flame; and possesses all the characteristics of vegetable wax, from which it is in no wise different.

The drying is ended when the boiling sirup marks 44 or 45^o, (= specific gravity of 1.440 to 1.454.) The time for removing the sirup from the boiler may be known by the following signs.

1. Plunge a skimmer into the boiling sirup,

and upon withdrawing it pass the thumb of the right hand over its surface; mould the sirup which adheres to the thumb between that and the fore finger, till the temperature be the same as that of the skin; then separate the thumb and finger suddenly; if the boiling be not completed, no thread will be formed between the two; if there be a filament, the boiling is well advanced; and the process is completed as soon as the filament breaks short, and the upper part, having the semi-transparency of horn, curls itself into a spiral. This manner of trying the sirup is known by the name *proving*.

2. The second mode of judging of the completion of the process, is by observing the time when the sirup ceases to moisten the sides of the boiler, and then blowing forcibly into a skimmer which has just been immersed in it; if bubbles escape through the holes of the skimmer which ascend into the air in the same manner as soap bubbles do, the liquor is considered to be sufficiently boiled; the fire is therefore immediately extinguished, and the sirup in a few minutes after conveyed to a great copper boiler, which is called the *cooler*.

The cooler is placed in an apartment of the manufactory near the boilers; its capacity should be such as to allow of its receiving the product of the four successive boilings. The cooling which the sirup experiences in this vessel, quickly produces crystallization; the crystals form first at the bottom, where they collect in a thick bed, having however no union of particles. Gradually the sides become covered with solid crystals, and at length there is formed upon the surface a crust of sugar which thickens insensibly. At this time the contents of the cooler are taken out to fill the moulds in which the process of crystallization is to be completed.

The moulds used in this operation are known in refineries by the name of *grandes batardes*. They are large conical vessels of baked earth, with a small opening at the apex, and capable of containing about 100 pounds of the evaporated sirup. The different sizes are distinguished in the manufactories as *grandes et petites batardes*, according to their different capacities; they are numbered 1, 2, 3, 4, &c. Moulds made of resinous wood have supplied the place of these in some manufactories; this change was proposed by M. Mathieu de Dombasle, and in those countries where wood is abundant, it is a good one in point of economy.

The moulds must be soaked in water and then drained, before the sirup is put into them; the opening at the point is stopped with old linen, and the vessels themselves supported against the walls to receive the liquor.

The contents of the cooler are first thoroughly

stirred and mixed, and then thrown gradually into the moulds, a portion being put into each in turn, so as to fill them all equally: an interval of an inch is left between the surface of the sirup and the top of the mould.

Crystallization is hastened by carrying the moulds, as soon as they are full, into the coolest apartment of the manufactory.

The sirup arising from the employment of 10,000 pounds of beet roots, if the operations are well conducted, will fill nine *grandes batardes*, each *batarde* containing from 85 to 90 pounds of evaporated sirup.

When the different boilings are made slowly, or experience any interruption, the moulds are partially filled from the cooler, without waiting for the last product; otherwise crystallization would be completed in the cooler, and all the contents of it would form a mass which could not be poured into the moulds to extract from it the molasses.

Cooling causes the formation of crystals upon the sides of the moulds and the surface of the liquor. As soon as this crust of crystals has acquired some degree of consistency, it must be broken with a wooden spatula, and the whole contents of the mould carefully stirred, so as to collect in the centre the crystals that have formed upon the sides. When this has been done the crystallization is allowed to go on undisturbed.

Three days are more than enough for the formation of all the crystals.

The operation may be known to be good,—

1. When the surface of the crystallized mass is dry, so that in passing the hand over it neither moisture nor adhesiveness is perceived.

2. When the crust settles and breaks in the centre: in this case the refiners say the sugar *makes a fountain*.

3. The yellow color of the crystal is generally a good indication, but in this case of beet sugar it is unimportant, because the color may have been sickened by the animal charcoal employed when the filtration of the clarified liquor has not been carefully executed; and this color is easily made to disappear by clarification and refinement.

The plugs that close the points of the moulds are then taken out, and the moulds are placed in earthen pots, that the molasses may flow from them. These pots should be large enough to contain five or six galls. of liquor.

The crystals will be deprived of the molasses which unites them in about eight days; the moulds are then carried into an apartment which, by means of a stove, is kept constantly heated to 18 or 20° of Reaumer, (=72.5° and 77° Fahr.) and there placed in fresh pots.

The next operation is that of leaching the contents of the moulds, in order to obtain from them

that portion of molasses which refused to flow out. For this purpose the surface of the loaves is carefully broken and scraped with a blade of a knife, so as to smooth it, and then there is thrown upon each one about half a pound of a white sirup, marking from 27 to 30° (=specific gravity of 1.231 to 1.261.) This sirup is only a portion of that which is prepared for boiling.

This sirup penetrates into the loaves, diluting and carrying off the molasses, which is three or four degrees more concentrated than itself. If the concentration of the sirup were less, it would dissolve the sugar; if it were more, it would render the sugar adhesive. This operation is renewed two or three times at intervals of two days.

When the loaves have remained a month in the stove-room, they can be taken out of the moulds; they are then found to be dry and entirely deprived of molasses, and are piled up in the storehouse, where they are kept to be refined.

ON BOILING THE MOLASSES AND LEACHING SIRUPS

I mix the molasses obtained from the brown sugar with the sirups which have been filtrated through the loaves, and proceed to boil the mixture. The molasses marks 22 or 24°, (=1.171 to 1.180,) and the mixture 22 or 23°, 1.180 to 1.190.) I throw from 32 to 35 gallons of this mixture into the boiler, and when the heat approaches to ebullition, I add about one pound of animal charcoale which I mix carefully with the liquor.

The boiling of this liquor is more difficult than that of the sirup which produces the brown sugar, but with care and patience it may be done to very good advantage. This liquor yields at least one sixth of the quantity of sugar that has been produced by the first operation; this product is sufficiently important to render it advisable to boil down the molasses, instead of disposing of it, as is almost everywhere done, for distillation.

If the molasses procured from beets was of the same quality as that obtained from the sugar cane, it could be sold with advantage, but it has a bitter taste which renders it unsaleable; it is then best to exhaust it of crystallizable matter, and to subject the remainder to distillation. The difference in the quantity of alcohol obtained from the two kinds of molasses is almost nothing.

Instead of depositing the product of this last boiling in moulds, I throw it, from day to day, into a hogshead open at one end, and thus gradually fill the cask; the sugar crystallizes wonderfully in these vessels, so that they become half full of it.

When this sugar, which I call molasses sugar, to distinguish it from brown sugar of the first boiling is to be refined, the molasses which lies on the top is dipped out, and the rest is made to flow

out through small gimlet holes bored in the bottom and around the circumference of the cask.

The sugar when deprived of all the molasses which can be made to flow from it, still forms only an adhesive paste which can scarcely be refined; I therefore put this paste into bags of coarse, strong cloth, and subject it to a strong compression. The sugar thus freed from molasses is very dark colored, but the quality of it is excellent, and it is as easily refined as the best brown sugar.

When the brown sugar boilings turn badly, and crystallization in the mould is imperfect, and, in a word, at all times when sugar is ropy and parts but imperfectly with its molasses, it is necessary to subject it to the action of the press before attempting to refine it; as soon as it has in this way been freed from all its molasses, it may be refined without any difficulty.

In most of the beet-sugar manufactories they have adopted the swinging boilers for preparing their sirups; concentration is performed speedily in these, and they have the advantage of being emptied in a moment; but they are useful only when the operation is performed upon dry sugars, like the American, which contains but little molasses. Our beet-sugar is never so well drained as the imported sugars are, and requires much more care in the boiling. These boilers appear to me more apt to cause the burning of the sugar than the old kind, and I therefore give the preference to the latter.

ON THE REFINING OF SUGAR OBTAINED FROM BEET ROOTS.

When the sugar is dry, the refining of it is easily performed; all possible pains then should be taken in the preceding operations to free it from all its molasses.

All the operation of refining may be brought under two heads, clarification in the boiler, and whitening in the moulds.

To refine sugar well, it is better not to operate upon too large quantities. I have always observed, that when I subjected to the same boiling process 2000 or 3000 lbs. of sugar, the last boilings were ropy, and each operation less perfect than when performed upon 400 kilogrammes (about 890 lbs.) at one time; it is upon this last quantity that I shall found my calculations.

I have never been able to assign a reason for this difference, but it actually exists; perhaps it arises from my not being able to complete my boilings in one day, and the clarified sirups have become changed in the boiler; or perhaps a large quantity of sirup may be more difficult to manage than a small one, though the ingredients be combined in the same proportions.

ON CLARIFICATION.

A boiler four or five feet in diameter and twenty-eight inches in depth, is two thirds filled with water, to which lime-water enough to fill the boiler is added; in this mixture is dissolved at a low heat 400 kilogrammes of brown sugar.

The solution must not mark more than 32° ($=1.286$) of concentration; if it stands higher, it must be weakened, if lower, more sugar must be added. This state of concentration belongs only to solutions of dry sugar; those of damp sugar must be reduced to 30° or 25° ($=1.261$ to 1.210), otherwise it will be almost impossible to filtrate them.

The solution is then heated to ebullition. When the temperature reaches 65° ($=178\frac{1}{2}^{\circ}$ Fabr.) fifteen kilogrammes ($32\frac{3}{4}$ lbs.) of animal charcoal are added to it; the mixture is then carefully stirred and mixed with a wooden spatula; after allowing it to boil an hour, the fire is extinguished.

The quantity of animal charcoal added ought to vary according to the quality of the sugar, that which is dry requiring a less portion than that which is wet.

The boiling liquor is freed from the charcoal by filtration through a coarse cloth and when the heat has fallen to 40° (122° Fabr.) the whites of forty eggs beaten and diluted with several quarts of water are thrown into the boiler. The liquor is then carefully stirred, and is kept constantly in motion till the temperature rises to 70° ($=180^{\circ}$ Fabr.,) when stirring is omitted and the heat raised to the boiling point.

As soon as the first bubble appears upon the surface, the fire is extinguished; a thick coat of scum forms upon the surface of the liquor, and is removed at the end of three quarters of an hour.

The liquor is filtered through a coarse, thick, rough cloth; if the first portion that passes through be not perfectly clear, it is to be thrown again upon the filter, and this operation is repeated till the liquor appears completely limpid and free from any floating particles. As soon as the liquor is perfectly clear, it is boiled; five or six boilings being formed with the product of the clarification.

The several boilings are thrown into the cooler as fast as they are completed, and from thence into the moulds *four*, which can contain $5\frac{1}{4}$ gallons each. These operations are conducted in the same manner as those which I have described in speaking of brown sugar, but with this difference, that the sugar contained in the moulds is stirred and moved at two different times before it is taken in the mass.

After three days the moulds are placed upon the pots into which the molasses drains, and at the end of eight more, they are removed to the second pots where the whitening is to be performed.

GLEANINGS IN HUSBANDRY,

BY THE EDITOR.

Agricultural knowledge may be adapted to different climates and circumstances. "However different be the natural production of countries, and however necessary it be that the farmer adapt his operations to these differences, yet there are rules and maxims in the art common to the husbandry of all countries; and he who is thoroughly acquainted with one good system of practice applicable to any one situation of the farmer, has the means by an easy analogy, of applying his knowledge to other and similar cases. A person thoroughly trained to practice on the banks of the Tweed would make a good farmer on the banks of the Po or the Ohio. He has received the kind of instruction which is useful under all circumstances, under which they can be applied."—*Professor Row*.

Potatoes for Sheep.—"Gen. Murray uses potatoes for fattening sheep as well as for lean stock. He has now 196 fat wethers, that eat very near 14 bushels of potatoes and 100 weight of hay *per diem*; it may be reckoned 14 bushels for 200 Sheep. If they have as many potatoes as they will eat, they do not require more than half a pound of hay each *per diem*.—*Young's Annals, Vol. II. p. 285*.

It will be proper in feeding cattle with potatoes, or other roots to give them but a small quantity at first, increasing it by degrees as they become accustomed to that sort of food. It will be better to give a little every day than large messes, once in three or four days or a week.—*Vol. II. p. 57*.

Fattening Hogs.—If your object is merely in fattening swine it will be advisable to take time for the process. A farmer, stating the result of some experiments in the Bath Society papers, Vol. VI. p. 382, says: "I invariably found that the quantity of food consumed (by fattening hogs,) increased every week, till the animals became three parts fat; after this period they ate but little, and almost all they eat turned to fat. It is, therefore, good policy to make them completely fat, and that can only be done, by giving time."

Lynch law among Swine.—It is said that hogs thrive best when there are but three or four in the same apartment or pen. They are fond of society, but exhibit the vilest propensities of a "swinish multitude" and become very riotous if congregated in a large assembly. As they know no law but Lynch law, and acknowledge no right but that of the strongest, they sometimes condemn a weaker brother in a popular assembly, and proceed to execute him without Judge or Jury. The sty, therefore, should have a number of apartments separated by close partitions, and there may be a

general feeding trough to which each division of animals may have separate access.

Salt hay has usually been hurt by lying too long in the swaths. Dr. Dean directs to cock it the next day after it is cut, and carry it in, without delaying more than one day, and put a layer of some kind of dry straw between load and load of it in the mow, to prevent its taking damage by over heating. The straw contracts so much of its moisture and saltness, that the cattle eat it very freely, and the hay is far better than that made in the common way.

Water Plants.—Water is apparently the medium by which all the matter of nutrition, in whatever form is conveyed into the roots of plants, and without which, accordingly, vegetation is never known to take place.—*Low's Elements of Agriculture*.

Seaweed for Manure.—Seaweed consisting of different species of Fucus and other marine plants, is greatly used upon the sea coasts of Great Britain and Ireland as a manure. It is very transient in its effects; but is nevertheless of much value in situations where it can be obtained. The most common method of using it, is to convey it directly to the land, and apply it fresh as a top dressing to the growing crops. If left in a heap by itself its more soluble parts are exhaled, and a dry fibrous matter alone remains. If it is not applied, therefore, in its recent state, it should be formed into a compost with dung, or with a mixture of dung and earth.

Seaweed is chiefly valuable for light and dry soils. It is of less comparative value for the stiffer clays; and hence when a farm has access to it, it is better to apply the seaweed to the lighter, and the dung to the stiffer soils on the farm.—*Ib.*

Peat.—Peat is a substance which may be used as a manure, but unless freed of its acid principle it may remain for years exposed to water and air without undergoing decomposition, in which state it can afford no nourishment to plants. Pure peat, should, therefore, be made to undergo decomposition before it is applied to the soil. This may be done by long exposure to the air, or by mixing it with quick lime, which decomposes its woody fibre, and forms a kind of compost which, however, is not greatly valued.

SOFT BEDS.—Children and youth who are accustomed to sleep on soft or feather beds during the warm season require more than ordinary force of constitution not to be injured by it. The hair mattress is best adapted both for summer and winter.—It is thought that feather beds tend to induce consumption.

**FARMER B. OR THE MAN WHO WORKS IT
RIGHT.**

BY A TRAVELLER.

It was during the same tour in which I met with Farmer A. whose system and its results I have given in a former number of this journal, that I made an acquaintance with another individual who I shall call farmer B. and if I could convey to the readers of the Farmer, but a small degree of the pleasure, which a sight of what industry and good order can accomplish, has afforded me in the remembrance of the incidents I should feel myself amply rewarded.

Mr B. as well as Mr A. was a native of one of the eastern states, and when he removed to western New York, he took care to secure a farm containing as many natural advantages as possible, though in this respect I think his farm was inferior to farmer A. When he had made his choice however, he considered it as made for life, and immediately set himself at work to effect a thorough and permanent arrangement of his premises, previous to the course of improvement he intended to adopt. A large farm and great wealth formed no part of his plans — a farm of ordinary size, contentment and competence, were the extent of his ambition, and these things he speedily accomplished.

Farmer B.'s house is one of the most perfect specimens of that picture of rural neatness, elegance and comfort, an English cottage, that I have seen in this country. Standing at a little distance from the public highway, unassuming in its altitude dimensions, embowered in trees, and half hidden in vines and shrubbery, it seems as you approach it the chosen retreat of farming taste and comfort. The neatly painted pickets of the different enclosures were as firm and perfect as if put on but yesterday. The gates to the different avenues were ready for use without creaking or grating. The avenues themselves were well graveled, hard and clean — the grass was cut close, and free from all dirt or rubbish, and it was evident the work done here had not been injuriously subtracted from labor required elsewhere; every thing had been done in order and in time, and a glance showed that the whole secret consisted in these two words — good management.

On entering the house, as might have been expected, the same order and neatness was found pervading every spot. Mrs B. was a middle aged, sensible woman, a good farmer's wife, without the least effort at display or ostentation, but greeting the stranger with a welcome and frankness that gave additional value to whatever obligation she conferred. Two daughters, the one eight, and the other perhaps fifteen, with their mother, constituted the female part of the family. I know of no sight on earth to me more pleasing,

or so conducive of delightful emotions, as a beautiful little girl, such as the playful Mary B. They are the rose buds of human nature, — pure themselves, and ignorant of wrong in others, they only delight in seeing others happy, — overflowing with affection which they have not yet learned to hoard for a single favored individual, and unacquainted with those deeper and mysterious influences which startle the young girl, and mantle her cheek with blushes, when she first acknowledges their existence and power: there is a fearlessness and frankness about the innocent creatures, difficult to retain in after life, but which, when combined with purity of heart, forms the great charm of female character.

Farmer B. was at home when I arrived, and as we walked over his well managed farm, he seemed to feel a rational pleasure in recounting the steps by which he had brought it to such a state of fertility and productiveness, and of which ample proof was found in the fact, that he had that day received six hundred dollars for a crop of wheat grown on twenty acres. Two of his oldest sons were at work in the field, the youngest being at school; Mr B. remarking, that as he intended his children for farmers, or the wives of farmers, they were kept at school until they were able to aid in the business of the farm, the girls by assisting their mother, and the boys in the field, when the summer schooling was discontinued, but resumed in the winter, or at an academy, as long as was desirable — it being his opinion, that a due regard to health, and an ample acquaintance with the operations of husbandry, demanded that course. Mr B. said he was a strict utilitarian, and while he admitted as useful to his children, and required in their course of studies, much that others would consider as unnecessary, he would not allow them to consume their time upon courses purely ornamental, and for which in all probability they would find little or no use in their after sphere of active life. Farmer B. was not a visionary or enthusiast in farming; but he loved experiment, and never rejected a proposition because it was new — it was enough that it commended itself to his reason, and was able to bear the close and rigid scrutiny to which he was accustomed to submit all farming speculations.

There are few passages in life more delightful than an evening spent in such a family. Intelligent, amiable, and unaffected in their manners, their cheerful courtesy makes one feel at home, and places him at once on one of those green islands that are here and there found in the needlessly broad desert of human life. In the room to which we were introduced for the evening, were a fire, lamps, sofa, carpet, chairs, and what I particularly noticed, a table on which lay one or two of the latest newspapers, a magazine or review,

and an agricultural journal of established celebrity. There was an assortment of books, not large, but well selected, consisting of voyages, travels, history, and a number of theological volumes, with one of the popular commentators on the Bible. The family were soon grouped around, and all, even to little Mary, were busy, the boys with their books, the girls with their sewing.

"You will excuse us," said Mr B. to me, "but we have in our family long since adopted a practice which we do not like to relinquish: for one hour in the evening, after the usual labors of the day are closed, some one of us, and we intend to do it in rotation, reads aloud for the benefit of the others, and as we have just received a work more than usually interesting, my children would feel deprived of a privilege were this custom omitted this evening." I of course begged I might not be a hindrance to their happiness, and young Mellen, the second son, a lad of sixteen, was called upon to read. John Neal, I remember, says that he knew of but three good readers in the United States, and spite of his modesty, I presume he would include himself in that number; certain it is, the number is but few who enter into the spirit of an author, and understand giving his words and sentiments their proper value and effect. Mellen however, far exceeded my expectations, and when he named *Lamartine's Pilgrimage to the Holy Land*, as the work they were reading, I was not surprised they were anxious for its continuation; and when the hour had expired, so deeply interested had we all become in the narration of the eloquent Frenchman, that by an unanimous vote, the book was handed to the eldest daughter, and another hour glided quickly away in listening to her sweet toned voice, and the glowing thoughts of the poetic writer. After what I had seen and heard, I was not surprised to find Mr B. a man of deep religious feeling, or disposed to wonder at the profound feeling of humility and thankfulness with which he closed the evening by commending us all to the care of a beneficent Creator.

After the children had retired, I could not help congratulating Mr B. on the excellent course he had adopted in the family of accumulating knowledge, and the beautiful effect its influence already exercised. It is said, he remarked in reply, that farmers, or their children, do not have as much time to read as the children of professional men or mechanics, and it may be partly true, yet I am convinced the plea which farmers so often urge as an excuse for their ignorance, that they have no time to read, arises more frequently from disinclination to read, than from any other cause. Few men are sensible how many valuable books are gone through in a year by the reading of an hour a day; and by having them read aloud in the family, all are interested, and all are instructed. As I have

accustomed my children to ask questions on what is read, and to the correcting of errors in the reading, the attention even of the youngest rarely flags during the hour.

I went to bed reflecting on the contrast between farmers A. and B. and the different probable results their influence and that of their families would have on their own happiness, and that of the society around them. With farmer A. everything was at sevens and sixes; nothing in doors or out, in the house or on the farm, as it should be, or as it ought to have been; and this state of things evidently had its effects on the minds of the family, rendering them morose, ill-tempered, I may almost say, immoral; as well as continually restless and dissatisfied with everything around them, without inducing the necessary steps to cure the evils of which they were so ready to complain. On the contrary, at farmer B.'s every thing moved like clock-work, and it was evident the success as a farmer arose from having his work done in season, and from "having a place for everything and everything in its place." Its effects on the family we have seen, and one thing is certain — Mr B. will not go to the west in search of competence or happiness.— *Gen. Far.*

CROPS IN INDIANA.— We are glad to learn from the *Madison (Indiana) Banner*, of the 27th ult. that the favorable accounts heretofore had of that region are fully confirmed. The *Banner* states upon the strength of late information from all parts of that State, that the prospect for the crops was highly favorable, and the promise certain of an abundant reward for the toil and labor of the farmer. The *Richmond (Indiana,) Palladium* of the 16th ult. thus confirms what is said by the *Banner*:—"We are now in the midst of harvest, and seldom has nature yielded a more bounteous return for the labor of the husbandman in this country."—*Lancaster Herald.*

HAY.— The crop of hay comes in quite abundant this year. On account of the weather the farmers have not been able to get their hay as early as usual, and much of it has remained until it is considerably dead; consequently the crop of rowen will not be so large. It is estimated, by a shrewd farmer, that the price of good hay here will range, this year from ten to fifteen dollars.—*Hampshire Gazette.*

GREAT CORN CROP.— Mr Calvin Wells of Whately, accidentally planted one kernel of Indian Corn among his broom seed, this year, and reader, how many ears do you think are now to be counted on this solitary corn stalk. Why, *thirteen* exactly, yes, thirteen ears of Corn from one seed, reader. Now, what yankee, either here or in the "far west" can beat that.—*Northampton Cour.*

A TEAM OF COWS.

It would perhaps excite a smile, were a man seriously to propose a substitute of cows for oxen or horses in the labors of the field; and yet on examination the alternative might not, in many cases be found so unworthy of notice as at first supposed. Working cows is no new thing, and it is hardly possible, unless in certain cases the practice was decidedly advantageous, the custom would have continued so long. Samson accused the Philistines of ploughing with his heifer; an allusion without point unless the custom was common; and when the same enemies of Israel were compelled to restore the ark they had impiously carried off, the cows that were attached to the vehicle went lowing the whole distance. The practice of ploughing with cows is still common in most parts of the east, and in Africa; oxen being very rarely used for that purpose, and horses never. In the petty principalities of Gerinany, and in some parts of Switzerland, cow teams are generally used, the necessity of economizing labor, and the means of subsistence having clearly rendered such a course the most eligible. In the duchy of Nassau, for instance, one of the best cultivated and fruitful sections of Europe, according to the statements of the present Governor of Canada, the cow is used nearly altogether for the purpose of farming; and the picture he has given of these teams, driven by women, and conveying the produce of the country to market, as well as doing the other work of the farm, is lively, and well worthy of notice. It is true, a team of cows might not answer so well for our extensive wheat growers, or for breaking up the prairies of Michigan or Illinois; heavy oxen and strong horses will unquestionably continue to be found the best for these purposes; yet that by no means proves that there are not cases in which a heifer team would not be preferable. How many small farmers are there in our country, who cultivate but a few acres of land, and who of course require a team but a few days in a year, who might advantageously for these few days use their cows without injury. When we travel about the country, and find many farmers who think themselves unable to keep more than one cow, yet consider themselves obliged to maintain a span of poor half starved horses, to plough a few acres, or go to mill or to market, one cannot help comparing such farmers with the Nassau peasants, and reflecting, that as a cow can be kept at less expense than a horse, it would be far better for them to keep another cow or two, break them for a team, use them kindly and gently, and dismiss their worthless horses altogether. Cows in this case would be a double profit, for though experience, where they are used, proves that while they are used the quantity of milk secreted is less than when at liberty; yet when their use is over,

under favorable circumstances, they soon recover what they had lost in milk, and go on as usual. With good keeping, a cow will pay for herself in a single year; would it not be better then to substitute such valuable animals, where it can be done without permanent injury to them, for the worthless skeleton carcasses, that caricature and degrade that noble animal the horse! Let some one then, who is superior to vulgar prejudices, fairly and carefully make the experiment; let him give the result to the public, remembering that the man who shall enable our farmers to dispense with the horse, by substituting cow labor for horse labor, will deserve the title of benefactor to the poor.—*Genesee Farmer.*

"WHAT FARMERS MAY BE."

MR HOLMES — Your interesting correspondent, "J. H. S." under the above title, in the last Farmer lays down three distinct propositions, showing in substance that farmers may be the most learned, and the most influential class of men in the world. Under each proposition he has adduced several good reasons in support of them, and I can most cheerfully assent to all that he has said upon the subject. But while I am so ready to give in my adhesion to his doctrine, I am inclined to think he will find it not an easy task to induce any considerable portion of them to carry out in *practice* what he has so correctly laid down in *theory*.

The occupation of a farmer certainly requires the "most vigorous exercise of the physical powers of the body," and if you can induce a man to adopt that system of labor, which shall render the exercise of these powers productive of the greatest amount of ultimate good, you can hardly expect to convince him, that he may become one of the most learned and influential men in the world.

If I may be permitted to advance an opinion, I will say that, judging from daily observation, it would seem that many believe the exercise of mental and physical powers have no connexion in the business of husbandry, that our fathers and grandfathers *thought* all that was necessary to *think* upon the subject, and that nothing remains for us to do but work, work, work, without even *thinking* that we have power to *think*.

Therefore, if we would lay a firm "basis on which to build up their minds in wisdom and knowledge," we must first convince them that the course pursued by our fathers and grandfathers in relation to husbandry, is by no means the best course.

Convince them that in general a small farm is better than a large one.

Convince them that a little well tilled, is better than much half tilled.

Convince them that two loads of manure is bet-

ter than one, and every load judiciously applied is better than a silver dollar.

Convince them that three good cows are better than half a dozen poor ones, and so of all other stock.

Convince them that raising their own bread stuff and a little to sell, is far better than "going to New York to mill."

Convince them that two blades of grass may easily be made to grow, where only one grew before.

Convince them that experiment is the mother of improvement, and improvement the true source of wealth.

Convince them of these simple TRUTHS, and induce them to practise accordingly, and the work is done.

You will then bring *mind* and *body* to act in unison. You will elevate the husbandman to his natural sphere in the scale of existence. You will place him in the road to higher eminence. He will *think* for himself, he will be learned, he will be wise, he will be wealthy and influential.—*Maine Farmer.*

CHILBLAINS.—This affection forms one of the most troublesome of the small troubles incident to cold weather. The cause of chilblains is generally to be traced to sudden transitions from heat to cold, or the reverse. Exposure to cold and wet united, and particularly immersion in snow water, are causes of chilblains. Accordingly, they do not always occur during the continuance of intense frost, but are often more troublesome when the temperature begins to be milder by a thaw. It was observed by the celebrated Larrey, in the winter campaign of the French in Russia and Poland, that but a few days before, and a few days after the battle of Wagram, the thermometer was very low, from ten to fifteen degrees below zero; and yet during that time there was no mortification, nor did any other particular suffering about the hands or feet occur. But about two days after the battle a thaw took place, the thermometer rose from ten to twenty degrees, and then a great number of cases of mortification of the feet occurred in the army, in some particular divisions that was much exposed, and nearly all the soldiers suffered more or less.

Chilblains occur most frequently in persons of feeble constitution and delicate skin. Hence they are common in females and in children.—Like many other evils they are more easily prevented than cured. The means of prevention are, first, such as go to diminish the susceptibility of the surface, and second, such as protect it from vicissitudes of temperature.—Among the first there is nothing better than cold water, and thorough friction with a coarse towel. Among the most popu-

lar remedies for chilblains may be mentioned a strong brine, vinegar, camphorated alcohol, oil of turpentine, and other articles of this class. We have lately seen recommended the tincture of iodine as a wash, which is said to bring the parts very soon to a healthy state. A solution of the chloride of lime, in the proportion of one part to twentyfour parts of water, has been found to answer a good purpose. Another wash which has produced excellent effects is prepared by adding one part of tincture of flies to six parts of liquid opodeldoc. With this the affected part should be frequently rubbed. When the skin has broken, and the part has assumed the character of a sore, regular medical aid treatment must be resorted to, as the matter then becomes too serious for quackery.—*Phil. Herald.*

GREAT PRODUCE OF A COW.—Sir—If you think the following statement of the produce of a cow worth inserting in your valuable Magazine, you can do it.

The cow is of the short horn Durham breed, a twin, her dam having had twins three times in four years; she is a bay, her sister pure white, now in possession of my neighbor Mrs Post. My cow calved on the 16th of March, her calf remained from her 19 days, raised on the skim milk, until my cow came in on the 20th of April. The produce of butter was in that time, say 35 days, 54 1-2 pounds, and two butchers, although not sold to kill, pronounced her the best and heaviest calf they had seen that season. I will only observe, I keep but two cows and they are kept and fed in the yard.

Yours respectfully, THOS. ASH.

The above remarkable account of the produce of a short horned cow is furnished us by Mr Ash of Westchester county. There are few such, either as a breeder of milker.—*N. Y. Far.*

CURE FOR THE RINGWORM.—Take the root of the common yellow or wild dock, wash it clean, bruise it, or cut it in very thin slices, put it into a cup, or other small vessel, and add vinegar sufficient to cover it. Let it stand by a day or two, then apply the mixture to the Ringworm, by rubbing it with a piece of the root, two or three times a day, for a few successive days. This, it is said will effect an entire cure.

A single kernel of Rye which grew on the farm of Messrs Tisdale & Hewius, of Amherst, Me. produced 2286 kernels! It had 37 spears, each six feet high.—*Portland Advertiser.*

The editor of a Michigan paper acknowledges the receipt of a ripe, beautiful and fine flavored apple, measuring nine inches and five eighths circumference.

FARMERS' WORK.

BEETS, AND BEET SUGAR.—We have received very many and earnest solicitations, both from letters and verbal applications for plain practical information relative to the manufacture of sugar from the Beet. Not having had any experience in this manufacture we can do no more than select and refer to such authorities as give the intelligence solicited.

We have, accordingly, quoted from *Chaptal's Agricultural Chemistry*, and obtained from other sources particular and minute details, which we hope will prove useful as well as acceptable. It will, however, require not only science, but time and experience to bring this new art to such a degree of improvement as to render it advisable for a farmer, who is not in affluent circumstances to undertake to go largely into the manufacture. But every man, who owns half an acre of soil, proper for the purpose, may cultivate the Sugar Beet, with the hope of obtaining a very valuable product, whether he gains sugar from it or not.

With regard to the manufacture of sugar from the beet in this country, it presents a case in which delays are not dangerous. We should look ahead before we go ahead. We are pleased to learn that a patriotic society in Pennsylvania, with ample means to insure success has engaged in the concern, and the result of their labors and discoveries will be given to the public. In the mean time we can take a glimpse at the prospect, and be making preparation as good cultivators to aid the manufacturers of Beet Sugar with the material with which they must operate.

A writer in the Philadelphia National Gazette states that "the beets in this country, particularly the north part of Pennsylvania are most luxuriant. In France they yield per arpent, which is one tenth more than our acre, an average of 15 tons per acre. The White or Silesian Beet, ("Beta Alba") the Sugar Beet of France, has been raised within seven miles of Philadelphia, and produced much over this. Wm. Audenried, Esq. of Schuylkill County, Pa., has raised on his farm, of this beet, the enormous quantity of sixtytwo and a half tons the acre. We are assured by others who are growing the seed, which has been imported and distributed through the country by the "Beet Sugar Society" that they are in expectancy of producing a yield equal to the above.

A premium crop of mangel wurtzel for which Messrs Tristram and Henry Little of Newbury, Mass. obtained twenty dollars from the Massachusetts Society for Promoting Agriculture was 33 tons 10 cwt. and 14 lbs. See N. E. Farmer, Vol. 111. p. 212. Col. Powel inclosed certificates to the President of the Pennsylvania Agricultural Society, showing that sixteen hundred and thirtyfour bushels of mangel wurtzel, weighing seventyeight thousand four hundred and fortyeight pounds were produced on one acre and fourteen perches; and a part of the same field, containing thirteen contiguous rows, produced at the rate of two thousand and sixtyfive bushels per

acre, weighing fortyfour tons five hundred and twentyseven pounds.

The foregoing crops were of mangel wurtzel, which is sometimes confounded with the sugar beet. They are, however, materially different, the sugar beet, though it grows to about the same size with the mangel wurtzel, is of greater specific gravity, or heavier in proportion to its size, and contains much more saccharine matter. A writer for the New England Farmer, with the signature A. B., Vol. VIII. p. 222, prefers the Sugar Beet to the Mangel Wurtzel, and recommends it as "affording a beautiful crop of large sound roots, which if not so large as the mangel wurtzel, I think are heavier and will keep better. Their use as food for my cows has produced a decided improvement in the quality of their milk, which has been perceptible to all my family, in two days after I began to feed them out to my cows."

Thus we see that the Sugar Beet, considered as an article for feeding domestic animals, without regard to obtaining sugar from it, is one of the best products to which cultivators can turn their attention. The manufacturing of this root into sugar is not a farmer's business, but should, at least for the present, be left to the manufacturing capitalist, who can command money as well as information, and afford to patronize the farmer liberally by purchasing the products of his cultivation. The time may come, and we hope it will shortly arrive, in which every farmer will be able to make his own sugar from beets with so little trouble and expense that it will become as common as the making of apple sauce, or the salting of beef or pork for winter's use.

AN ELEGANT ARTICLE.—A gentleman of Nantucket has presented the Editor of the New England Farmer with a SILKEN HANDKERCHIEF, manufactured in that Island and printed with fine colors in Lynn. This is a beautiful specimen of American ingenuity; and a proof positive that we have only to set earnestly about fabricating our own Silks to make ourselves independent of foreigners to whom we have paid and are paying a greater tribute for this kind of precious merchandize than becomes a great, free, ingenious and industrious community. We should be delighted to exhibit our fine pocket ornament to any ladies or gentlemen who will do us the honor to call and look at it.

THE SEASON.—The weather during the past season for the most part has been absolutely *savege*. We learn that in many places last Saturday morning, frost covered vegetation as with a white mantle, though no serious damage was one thereto. English grain, we are told, is very good—wheat in particular. But corn, alas and alack! unless we have more "genial skies" and breezes from "the sweet south west," will be nearly, if not wholly cut off. Potatoes are said to be unusually good and the crop abundant.—*Brattleborough Vt. Phoenix.*

INDIAN CORN.

There is another question of interest to farmers, which relates to the mode of harvesting the crop, that is, whether it is best to top the stalks, cut the whole at the ground when the grain is glazed, or cut the whole when the grain is fully ripened. We have stated the experiments of Mr Clark of Northampton, one of the best practical farmers of our country, and of other gentlemen showing that the grain suffers a diminution of six or eight bushels the acre, by topping the stalks; and there seems to be no counterbalancing benefit in the fodder, unless at the expense of carrying the stalks to the borders of the field, that they may be secured before the crop is gathered, and before they become blanched and half ruined. And it is no protection against early autumnal frosts, but rather exposes unripened grain to be more injured. Hence, so far as regards these two modes, all who have made a comparison, seem to concur in the opinion, that stripping the corn of its tops and leaves is a bad practice. William Carmichael, of Virginia, has given us in the Farmer's Register, his experiments in this matter, which go to corroborate the conclusion we have drawn. He took, promiscuously, 100 ears from corn that had been topped, and 100 ears from that which had not been topped, growing side by side. The first weighed on the cob, 50 lbs.—shelled, 41 lbs., and measured 21 qts. 1 pt. The other 54 lbs.—shelled, 46 lbs., and measured 26 qts.—showing a difference of nearly one-fifth in favor of unstripped or untopped corn.—The fact is, that topping not only prevents the further elaboration of the sap, which can only take place in the leaves, and which is necessary for the growth of the corn, but it deprives the grain of much that is already elaborated, and on its way to the grain. If a fruit tree is deprived of its leaves, before the fruit has attained its growth, or mature flavor, for its supply of elaborate food, or vegetable blood is cut off by the loss of leaves. We have noticed this particularly in the plum.

Satisfactory experiments have not been made to determine whether it is most advantageous to cut the crop when the grain is merely glazed, or to wait till it is perfectly ripe. This will depend upon the amount of loss, if any, in the grain by early harvesting,—the relative value of the grain and fodder, and the prospects of both being injured by early frosts—for neither are liable to suffer from frost after the crop has been cut and put into shocks. It is to be noticed that in early tiling, the stalks are succulent, and abound in elaborate sap, on its descent from the leaves to the grain and that this supply of food to the grain continues to flow probably for some days after the corn is in the shock, and if so the grain itself continues to improve, though we think it likely

that the crop undergoes some trifling diminution. But if frost is likely to intervene before the complete maturity of the crop, there is no doubt but the corn will suffer less in shock than it will standing, while the fodder will be materially injured by frost. Admitting that there is a small loss in grain by early cutting, though it is undoubtedly less than when it is topped, the difference in the value of the fodder, under the two modes of management, is vastly in favor of early harvesting. We do not pretend to calculate to a nicety the difference in nutritious properties, of cornstalks cut in a succulent state, early in September, well cured, and well housed, and those left standing till October or November in the field, but we should think it fifty per cent. Well cured cornstalks afford an excellent winter food for neat cattle; and when fodder is likely to be in demand, they may be made to contribute largely to the profits of the farm.—Several of our acquaintance have kept their neat stock almost entirely upon this fodder during the past winter, and we have done the like, having first cut ours in a cutting machine; and so far as we can learn, the cattle kept upon them are in excellent condition.—*Cultivator.*

CHICKENS.—A disease called the gapes, so destructive among chickens, may be prevented, and if not too far advanced, cured by a slight mixture of assafetida in their food. Four ounces costing six and a quarter cents per ounce, dissolved in water and mixed once a day in food, is enough for four hundred chickens. If people have no sympathy for the sufferings of those beautiful little birds, they can't fail to have some for themselves, if bacon gets much higher.

ROSSIE LEAD MINES.—The Ogdensburg Times remarks in relation to this newly discovered mine, that the vein, which had been but partially opened, increases largely in width as well as in purity, the farther it goes down. There is every reason to suppose that it is absolutely inexhaustible. The specimens of the latest excavations, it is said, will yield ninety per cent.—*N. Y. Com. Adv.*

THE TREASURY BUILDING AND PATENT OFFICE.—An act was passed at the recent session of the N. Legislature providing for the buildings for the accommodation of the Treasury Department and Patent Office. "Both these buildings," says the Globe, "have been commenced with great spirit, and the progress already made upon them reflects great credit upon those under whose general direction they have been placed by the President, as well as upon the several individuals employed to carry into execution the plans which were so promptly and energetically adopted.

SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. II.

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(For the Silk Manual.)

PROGRESS OF SILK CULTURE IN THIS COUNTRY.

The success which has so far, generally attended the efforts that have been made by individuals, who have taken hold of the work in right good earnest, to introduce the culture, and manufacture of Silk among us, certainly gives fair and encouraging prospects of ultimate and not very far distant success. Is it asked what has been done? Look at the enterprise at Nantucket, where already silks of fine texture, comparing with the finest of European produce, have been manufactured, and on a Power-loom, of purely American ingenuity, the *second one in the world*, used for the purpose of manufacturing Silk stuffs—the first being at Providence, under the direction of the Silk Company there. Look at the Company at Framingham, in successful operation. That at Dedham, and at Northampton; at both of these places, factories are building, and their plans nearly completed to commence extensive operations. At Woburn a company has been formed with a large plantation of Mulberries under successful cultivation. There are some others in this state, and many in other States, all, as far as we can learn, prospering remarkably and beyond expectation. We will not forget to mention the Connecticut Silk Company. By its liberal policy hundreds of indigent persons, male and female, are taught, free from charge, in the mystery of reeling and spinning silk, and thus hundreds are

placed in comfortable situations, and pass their days in industry, content and independence, who otherwise might have lived in poverty and indolence.

And individual enterprise has been lending a powerful aid to advance this business. Mr Cobb almost unaided and alone, for more than ten years has been devoting his time and money for the interest of the cause. The venerable Du Ponceau of Philadelphia, and our patriotic Dearborn, have for a series of years, been investigating the subject, and laying the result of their research before the people. Whitmarsh of Northampton, whose splendid establishment is well known, is another that had faith, and embarked his fortunes in the silk business, looking forward to the time when it should assume a character and an importance for his remuneration, and well has he reaped. Adam Brooks, of Scituate, has invented several machines; his Silk spinner and twister is well known and is probably the best in the country. Mrs Brooks is an adept in the art of making sewing silk, and weaving. We passed a very pleasant hour at her hospitable mansion a few days since and were delighted with the specimens of her *workmanship* which she unfolded for our examination. Silk handkerchiefs, articles for vestings, for dresses, of the finest texture, beautiful hose, and gloves, and sewing silk, which is eagerly sought for on account of its superior strength. It is Mrs B's. intention to manufacture this fall, a piece of plush, &c. Her machinery is carried by horse-power.

We were highly gratified during a brief stay at New Haven, last June, in visiting the grounds of Mrs A. M. Wharton, (late Reddie.) We had heard much of Mrs W's. success in the culture of silk and expected to be gratified in our visit to her establishment. But we were really astonished at the extent, and excellence of her arrangements.

There is a cocoonery of generous dimensions, arranged in the most appropriate manner for the accommodation of the worms, in which are now upwards 800,000, most in the last age, and ready to spin. [Since the above was written the

Silk Culturist for August has come to hand which contains the following.

SILK CULTURE.

We have seen notices that Mr Du Bouchet, late from France, had commenced the business of raising the Silk Worm in the western part of the city; but did not suppose the establishment to be one of much importance until we attended the exhibition of the winding up of the cocoons, held a few days since. He has a large two story wooden building erected for the purpose, where he has fed worms and raised about two millions of cocoons this season, and attached to the building has a very large nursery, of the mulberry, by means of which he intends to prosecute the business more extensively.

We understand from Mr D'B. that he has the most improved and best machinery for reeling the silk, &c. He says the soil in this neighborhood is highly advantageous for raising the mulberry, and that there is no better location for carrying on the business extensively and profitably. He wishes some of our enterprising citizens to form a company for the purchase of lands and the erection of suitable buildings and convenience for carrying on the business in the best and most profitable manner; the company he would have so formed as to secure the interest of the stockholders in the property, and the avails of the business. He thinks he can convince any individual that it would be a very profitable investment of funds. We hope our citizens will not hesitate to afford pecuniary encouragement to an enterprise which promises to add wealth and importance to the town.]

Several hands find constant employ in gathering the leaves, and feeding the worms, all under the direction of M. Cha's Du Bouchet, a gentleman from France, well skilled in all the manipulations pertaining to Silk Culture, and the manufacture of Silk. The arrangements do credit to him. He has been eminently successful in bringing forward his worms, such a vast number of them, so early against all the disadvantage of a backward, and very unpropitious season.

Mrs W. has on her farm about 15,000 white Mulberry trees, and on her grounds adjacent, to the mansion house about 5000, with several thousand of the Chinese or *Morus Multicaulis* trees.

With a great many others Mrs W. has suffered from the gross impositions practised in Canton, in the shipment of seeds to this country, purporting to be what they are not, — "true and genuine *Morus Multicaulis* Seed." It is too bad that our enterprising citizens are to be thus fooled with. It is of immense injury in the loss of ground, loss of time, disappointment, and loss of money, which, at from seventyfive to four hundred and

fifty dollars a pound for the seed, is not a small amount.

Cannot some measures be adopted whereby a recurrence of this cheat may be avoided?

Mrs W. informed us that she will have seed this year, from true stock, and which can be depended upon. This is a gratifying fact. When the trees begin to produce seed in this country, we may with certainty calculate upon having enough to supply a moderate demand in a very short time, and not be subject to the dishonest tricks before alluded to.

There are many others, whose names are not at hand, who have with a commendable spirit of liberality, contributed to introduce the business, and excite an interest in it. Enough has been shown, however, to satisfy any one that in a few short years, the silk business in all its various branches will be second to none in the Union.

(For the Silk Manual.)

MULBERRY TREES IN MAINE.

P. M. Whitcomb, of Saco, is the only gentleman, we have any knowledge of, that has cultivated the Mulberry to any extent in that State. There is no doubt but that the climate of Maine is equally adapted to the Culture of Silk, as any in New England, and we want to see the farmers there, embark in the business, experimentally at least, — believing that they will find their profit in it. We understand that Mr Whitcomb will have for disposal this year 60 or 70,000 seedling trees of the White Mulberry.

Should some gentlemen form themselves into a Silk Company, and purchase those trees, they would form a good business for themselves, and lay the foundation for the establishment of Silk Culture in that quarter.

The Messrs Cheney, of Manchester, two enterprising gentlemen, who are devoting their whole time to the culture of the Mulberry and of Silk, and whose eminent success in cultivating the *Morus Multicaulis* trees this season was spoken of in a late number of the Silk Culturist, — have left at our office a simple and useful contrivance for the worms to wind their cocoons upon. They do not pretend that it is anything new, or original but merely exhibit it for the advantage of those who are raising Silk worms, and have no definite idea of the most improved plan for their winding. We think this method is preferable to any that we have ever seen.

A Professor at Pragne has discovered that potatoes make good beer, as clear and as strong as wine.

SILK CULTURE.

From the correspondence of Gen. Tallmadge, it appears,

1. That one great source of national wealth of France, is the product of the Vineyard, under the culture of the husbandman—and the Silk worm under the fostering care of the wife.

2. That in Italy, partially, and chiefly in France the culture of Silk is carried on by private and individual industry.

3. That a damp climate is injurious to the silk worm—and that the culture of silk does not prosper *near the ocean*.

4. That France does not produce one half of the raw silk which she manufactures. Her population is so dense that she cannot furnish sufficient space for mulberry trees.

5. That the warm dry summers of the inland parts of the United States are admirably fitted for the culture of silk in families, and that we shall succeed in it. *That when the leaves of different kinds of mulberries are mixed together, the worms will select and gather the Chinese mulberry.*

6. That in Europe the mulberry trees are cut off and kept dwarfed, for the convenience of gathering leaves.

7. That although the Chinese mulberry is vastly superior to any other for feeding silk worms, yet from the inaptitude of French farmers to change habits, there are comparatively but few of the Chinese mulberry set out in France. At this time there are probably growing in America more Chinese mulberry than in all Europe. Even after the experience of ages, Europeans are said to act more from usage and habit, than skill and experience. The demand for mulberry in America is so great, that the French this year have sold us 100 trees where they have set out 10 for their own use.

Remarks on the foregoing :

If Silk is one of the greatest sources of national wealth to France, and not land enough to grow its mulberry, and are necessitated to import raw silk, why cannot the culture become of equal importance to the wealth and prosperity of these United States, where we have land enough and to spare?

If in some parts of Europe the culture of silk is chiefly done in families and by private individuals, why cannot we do the same ourselves? "We can and we will do it." It has already been done in Mansfield, Ct.; they have no special act of government to enable them to do it, yet they annually make and sell over 30,000 dollars worth of silk, all made in families. Even the town of Northampton, Mass., has one enterprising gentleman, who removed from Mansfield some forty or fifty years since and brought with him a portion of the silk habit, and has, as we are told, from only a few trees manufactured annually for 40 years not less than 75 dollars worth of sewing

silk. This has been done in a silent and unostentatious manner, like other domestic employments, not sung in verse, or known scarcely a stone's throw from his residence. But how different at this time! Now, Northampton takes a prominent stand—is the very focus of silk culture,—possessing the knowledge and information necessary and requisite to the prosperity of the silk business.

If a damp location and the sea air be unfavorable to the health of the silk worm, then is plenty of room, high and dry, in the interior sections of every State in the Union, exempt from that evil. Where elevated dry soil and pure air abounds, therefore let not these advantages be neglected.

If the territory of France is so much covered with inhabitants that there is not spare room for mulberry trees sufficient for the silk manufactured there, we trust that America can never urge that as an apology why we should not raise all the silk needed for our national use, but we hope the enterprising spirit of our people will yet enable them to export many millions to other nations instead of importing annually as we now do about seventeen millions worth of silk materials. Of course, so much cash must be sent out of the country every year to pay for it. That silk worms will select the Chinese in preference to any other kind of mulberry, has been well attested, and from its use more silk is obtained.

Now if we have one of the most favorable climates for the culture of silk, let us not sleep as do others, but spread the mulberry throughout our fertile vallies, and cover our granite hills. Improve these sources of wealth which are within the grasp of yankee industry and perseverance, and instead of wandering to the "far west" in pursuit of what all cannot obtain, let us go ahead, harnessed with silken cords, and raise an abundance of that nourishment for the silk worm, the Chinese mulberry, which is necessary to speed the reel and shuttle, whether done in family or factories.

It is a singular fact, that while in Europe, and even in China the *garden of silk*, experience has convinced cultivators of the expediency of heading them down or cutting off the mulberry every year, for the convenience of gathering foliage,—that, at the same time, we have adopted the same method, not only for the same purposes, but also for augmenting the foliage, propagating the trees, and as a certain and sure protection from the severity of the climate.

Europeans are trammelled by the habits and customs of their predecessors, so are we. We have our corn and other crops, the culture of which has been transmitted from father to son ever since the settlement of the country; and having such veneration for our fathers' habits of industry

and sameness of crops, although twice the profits might be had from other crops. But these prejudices are fast giving way to the light of science and agricultural improvements, aided by the press and publications of the day.—*Northampton Cour.*

SILK CULTURE.

The importance of this branch of agriculture is becoming every day more apparent. The soil of the Atlantic States, otherwise poor and run out, is found to be admirably adapted to the cultivation of the Mulberry, and promises through this source rich remuneration for the trifling trouble necessary to bring the trees to perfection. If the business is pursued by with industry and zeal, the old States will be able to compete with the new, in despite of difference of soil and climate. Few farmers have any idea of the vast profit of the silk business. Four hundred and twenty pounds of silk was produced from four acres of ground, near Boston, planted with mulberry trees. This silk sold for \$3, 50 per pound—amounting to \$1470. The labor was performed by four girls, whose attention was required but a small portion of the time. The following statement of the profit of one acre of ground is given by Andrew Parmentier, Esq. of New York :

One acre fenced with mulberry hedges and set out with trees, - - -	250 00
Interest and additional expenses during 5 years, - - - - -	187 50
	\$437 50

The acre will then produce :

From 5 to 10 years - - -	20 per cent.
“ 10 to 15 “ - - -	47 “ “
“ 15 to 20 “ - - -	112 “ “

after 20 years the average will continue at 112 per cent.

The proportion of silk to the acre has been variously stated from 40 to 100 lbs.—a fair estimate would probably be about 60, which at three and a half dollars per lb. would be 210 dollars—a much larger sum than could be realized in any other manner from the same quantity of land. The demand for silk goods has been constantly increasing in this country. The importations last year amounted to nearly 16 millions of dollars, and it is probable that like the cotton business, the consumption of this elegant article of dress will more than keep pace with its increased cultivation. When the fact is generally known that any young lady, by a few hours of pleasant recreation in each week, can clothe herself in a splendid suite of native silk at the low rate of 12 1-2 cents per yard, there will not be a garden without its mulberry trees nor a chamber without shelves for the accommodation of the industrious spinner. The

individual who devotes a portion of his leisure to the introduction of this elegant and profitable business should be regarded as a public benefactor.

Great care should be used in selecting the seeds, especially those of the Chinese Mulberry. Nearly all of this latter kind purchased in Boston by gentlemen of this town last spring, proved to be worthless. From about 20 dollars worth of seed, one gentleman (Dr Durkee) has succeeded in raising a dozen or twenty vigorous plants. We should think that something near the sum of 400 dollars was lost by our fellow citizens from impositions of this kind. Hot water is said to be an infallible test—the seed which are good after being steeped in it a short time will sink, while the worthless will remain on the surface. John Bennett, Esq. has succeeded in raising a few fine trees of Chinese mulberry. He procured the plants, we believe, in New York. We were shown by him a few fine looking Cocoons made by worms fed on the leaves of these trees. If he succeeds in preserving his trees through the winter, he will next year reap a good crop and perhaps win the high reputation of being the first gentleman in Portsmouth who raised his own silk.

The White Mulberry has succeeded better in this vicinity. Several gentlemen have succeeded in raising a large number of plants. James W. Emery, Esq. has a great quantity of fine, thrifty looking plants; they are decidedly the best of the kind we have seen this year, and will in the course of another year be worth their weight in silver. Great care should be observed to prevent the young and tender plants from exposure to the severity of the winter. If this is done one or two years, until they become sufficiently hardy to resist the severity of the cold, no further precautions on this point will be necessary, as they are extremely tenacious of life, and when once firmly fixed beyond the power of frost they will be found nearly as difficult to get rid of as the Canadian thistle.—*N. H. Gazette.*

The Barre, Mass. Gazette, gives the following account of a farmer in that town named Ebenezer Johnson, who is in the 94th year of his age. He has been swinging the scythe the present hay season, with considerable vigor, and he sneers at the idea of being outdone by the younger wights of the sneath — he also performs a share of almost every kind of agricultural labor, and can truly boast of having been longer in the field, and of accomplishing more hard labor, than any other man he ever saw or heard of.

The Pennsylvania papers say there is no reason to apprehend a scarcity of anthracite coal.

GLEANINGS IN HUSBANDRY, AND ITEMS OF ECONOMY.

BY THE EDITOR OF THE N. E. FARMER.

ON PRESERVING VEGETABLES.—The preservation of vegetables for future use is effected by destroying or rendering dormant, the principle of life, and by warding off, as far as practicable, the progress of chemical decomposition. When vegetables or fruits are gathered for use or preservation, the air of the atmosphere which surrounds them is continually depriving them of carbon, and forming the carbonic acid gas. The water they contain, by its softening qualities, weakens the affinity of their elements; and heat produces the same effect by dilating their parts, and promoting the decomposing effect both of air and water. Hence drying in the sun or in ovens, is one of the most obvious modes of preserving vegetables for use as food, or for other purposes, but not for growth if the drying process is carried so far as to destroy the principle of life in seeds, roots or sections of the shoots of ligneous (woody) plants. Potatoes, turnips, and other excellent roots may be preserved from autumn to the following summer, by burying them in perfectly dry soil which shall be at the same time at a temperature but a few degrees above the freezing point. Corn [grain] may be preserved many years by first drying it thoroughly in the sun, and burying it in dry cool pits, and closing these so as effectually to exclude the atmospheric air. In a short time the air within is changed to carbonic acid gas, in which no animal will live, and in which, without the addition of oxygen or atmospheric air, no plant or seed will vegetate. The corn is thus preserved from decomposition, from insects, vermin, and from vegetation, in a far more effectual manner than it can be in a granary. In this way the Romans preserved their corn in chambers hewn out of dry rock, the Moors in the sides of hills, the Chinese at the present time in deep pits in dry soil, and the aboriginal natives of Africa, in earthen vessels hermetically sealed. The origin of these practices are all obvious imitations of what accidentally takes place in nature, from withered grassy tussocks to the hedgehog's winter store; and hence the origin of herb, seed and root rooms and cellars, and packing plants and seeds for sending to a distance.—*Enc. of Agr.*

Jerusalem Artichoke.—This plant is in a peculiar manner fitted to grow under the shade. It can, therefore be cultivated in woods; and it is sometimes sown in England to afford shelter for game; the plants being left to reproduce themselves annually from tubers.

Taking into account the hardy qualities of this plant, its productiveness and easy culture, it may be doubted whether it merits the universal neglect into which it has fallen. Granting its inferiority as an article of food to the plants now cultivated

for our domestic stock, it must be of some importance to have a plant that can be so easily raised and on soils so low in the scale of fertility.

To keep off or drive away Bed Bugs.—Make a strong decoction of red pepper, when ripe, and apply it with a common paint brush to the joints of the bedstead, wainscoating, &c. where these insects resort and it will kill or expel them.

Warm water for cows.—It has been said that cows will give the more milk in cold weather in consequence of having water which they drink made a little warm.

A method of making good butter from the milk of cows fed on turnips.—Let the vessels which receive the milk be kept constantly clean and well scalded with boiling water. When the milk is brought to the dairy, with every eight quarts mix one quart of boiling water, and then put it up to stand for cream.—*Hunter's Geological Essays.*

Method of preserving young trees from being injured by Hares or Rabbits.—By William Pater-son, Esq. of Iberden, Kent, Eng.

Hares, rabbits and rats have a natural antipathy to tar; but tar, though fluid, contracts (when exposed to the sun and air for sometime) a great dryness, and a very binding quality; and if applied to trees in its natural state will occasion them to be bound. To remove the difficulties, tar is of so strong a savor, that a small quantity mixed with other things in their nature loose and open, will give the whole mixture such a degree of its own taste and smell, as will prevent hares, &c. from touching what it is applied to.

Take any quantity of tar, and six or seven times as much grease, stirring and mixing them together; with this composition brush the stems of young trees, as high as the hares, &c. reach, and it will effectually prevent their being barked. I believe if a plantation of ash, (which they are very fond of) were made in a rabbit warren, this mixture would certainly preserve it. These animals do great mischief amongst flowering shrubs, and are particularly fond of Spanish broom, Scorpion Senna, and evergreen Cystissus. I have had those shrubs eaten down to a stump, but as the mixture cannot well be applied to them, I have enclosed their branches with a new tar twine, putting it several times round the shrub, which has had the desired effect. Tar twine by being exposed to the air and rain, will lose its smell, consequently must be renewed as occasion requires; but the mixture is always to be preferred where it can be useful.

Note by the Editor of the N. E. Farmer.—It is probable that the above mentioned composition would preserve young trees in nurseries from the depredations of mice, moles, &c., which are often fatal to young fruit trees, &c. in many parts of the United States.

ANTICIPATED CHANGE IN THE AGRICULTURE OF THE UNITED STATES.

Some considerable time has now passed since we yielded, slowly and with difficulty, to the belief, that the introduction of silk culture in this country would be extended widely and profitably: and since adopting that opinion, we have made continually repeated efforts to impress on the people of Virginia, and the other southern states, the superiority of their facilities — in better climate, cheaper land, and surplus and now less expensive hands — for carrying on this new business, over those of our northern countrymen, who have already proved the advantages to be derived, and are investing large capitals in numerous adventures for this object. In New England, where most of these efforts are making, there is no superfluity of labor. Fortunately, every poor female, and all persons infirm from either tender or advanced age, may be, and annually are, employed profitably, according to their measure of bodily power. Yet still it is considered profitable to divert much of this labor to the silk business: and that too, in a climate so rigorous that artificial heat must be used frequently in rearing the worms, and the best kinds of mulberries are often greatly injured if not killed to the ground, by such severe winters as the last. In Virginia, there is no difficulty as to climate — thousands now unemployed and expensive hands might be given to the work — and lands, now unprofitable or neglected, and at very low prices, would serve as well for planting, as those selling ten or twenty times as high in New England. Putting all views of greater pecuniary profits aside, if the silk culture could be established in Virginia, without any absolute loss to the undertakers, a great moral and political benefit would be gained, in giving the bread of independence and of honest labor, to thousands of destitute females, who have now no resource but to live on the charity of others, or to starve on their own ill-paid labor of the needle.

Another new kind of industry now seems likely to be introduced, and established with profit — and which, in a different manner, offers great benefit to the agriculture of a large portion of the United States. This is the making of sugar from beets. We readily confess, that until very recently, we considered this scheme worthless, and absurd in every country that could freely import sugar produced from the cane — and that this species of industry, which could not be established by the iron despotism of Napoleon, and the protection afforded by his “continual system,” could not exist in times of peace and of comparatively free trade. But we have been forced to yield the opinion to such facts as are presented in the letter of Professor Cooper, and other pieces in this No. which are but specimens of many that have re-

cently appeared. If, as seems to be undeniable, beet sugar can be made cheaper than that of the cane can be bought, there is an end of all question and doubt as to profit. There is also an agricultural benefit to be expected from the new culture of beets, for sugar, that is very important, and that is an addition to all the pecuniary profit expected from the sale of sugar, and the profits of live stock fed on the pulp left after the saccharine matter has been expressed. This is the introduction in our farming of what is so greatly needed, an increased extent of culture of roots, or green and meliorating crops, to take the place of our too extensive grain culture. The culture of beets for sugar, and the use of the pulp as food for cattle, must necessarily make the rotation of crops more mild, and add greatly to the improvement of the soil — and by this means, would ultimately add very far more to the fertility and wealth of a country, than as much grain culture, even though the pecuniary profits to the farmer, at first, might be no more. The same important consideration applies also, though in a different manner, to silk culture. Thus it may well happen, that the introduction of these two new kinds of culture, even though not attended with greater pecuniary profits, (or not much greater,) at first, would be productive ultimately of far greater to each individual farmer, as well as of greater moral and political benefits to the nation.

This important consideration of the advantage of beet culture to a rotation of crops, is properly appreciated in France. The latest French article on the subject that we have seen is from the pen of M. Soulange Bodin, and appeared in the *Annales de l'Agriculture Francaise* for April, 1836. We offer a translation of a passage on this head.

“The Viscount Morel de Vinde, in these Memoirs, has then presented the sugar beet as being the best, or rather the only kind of tilled plants which, in the four-shift rotation, can usefully be substituted for the year of naked fallow (to prepare for wheat;) and he thus considers as connected the universal perfection of our agriculture, with the manufacture itself of sugar from beets: a manufacture which, by its indefinite extension, and demand continually renewed, ought to give greater encouragement to the culture of this plant, which is susceptible of having, from this moment, a general use, and a certain sale. Indeed he says, the (making perfect the) four-shift rotation, consists in finding a plant that is not exhausting to the soil — of which the tillage is confined to one year, and serves well to cleanse and to pulverize the soil — and of which the products, not yielding a kind of food for men before indigenous, or belonging to the country, shall however be in general use, and command certain and ready sale. The beet, applied to the making of sugar, fulfils

perfectly the conditions of the problem." * * *
 "It may also be observed, that the plant which by the production of this sugar, renders possible the universal improvement of agriculture, furnishes besides, by its remains, (as food) the best of all manures from cattle. This plant fulfils so completely all the conditions required from tillage crops, that it would be necessary to substitute it for the naked fallows, even though it should not yield otherwise (and at first) such rich or important products."

In the report of the Council of Agriculture, Manufactures and Commerce, which was also published in the *Annales*, it is stated by the Minister of Commerce (presiding at the meeting) that the manufactories of France in 1835, yielded 25 millions of kilogrammes of beet sugar, of the value of 35 francs the quintal, which is equal to one third of the annual consumption of the kingdom; that 50,000 hectares of land were then subjected to the culture of the plant; and that in those parts of France where the culture was established on a large scale, the value of the lands had been increased, and in many cases even had been doubled.

According to the present imperfect lights on this subject, we fear that the beet culture will not suit a region so warm in Eastern Virginia. But its introduction will be a benefit sufficiently important, even if confined to the regions lying more north and west. It is probable that the fanaticism of the "abolitionists" may be mingled with the motives to lead this culture in the north — and that one of the results may be an effort to lessen the consumption of sugar from the cane, as being the product of slave labor. Be it so. This fanaticism cannot exert any part of its tremendous force more harmlessly to the south, or more beneficially to the north, than in promoting the extension of this new culture — *Far. Reg.*

FRUIT.

Why are some fruits improved in sweetness by drying or half withering on the trees?

Because their watery parts thus exhale, and the sugar is virtually increased in quantity.

Why should grapes hang on the vine until they are perfectly ripe?

Because unripe bunches never get any riper after they are gathered.

Why should grapes be eaten soon after they are gathered?

Because unlike other fruits, grapes do not improve in flavor after gathering.

Why should the crowns be removed from ripe pine-apples?

Because, when suffered to remain, they live upon the fruit till they have sucked out all the goodness.

Why does an apple, when cut, first appear white and after a time brownish?

Because a fermentation arises from the rest of the fruit absorbing the oxygen of the atmosphere; the apple having previously been, by its tough skin, protected from the contact of the air.—*Denovan.*

Why are certain apples called russetings?

Because of their russet or reddish brown color.

Why should raspberries be eaten from the bush?

Because their flavor is the most fleeting of all fruit. Even a few hours will diminish it, and on the bush the flavor does not continue above two or three days after the fruit is ripe. If kept for two or three days when gathered the flavor is almost entirely gone.

Why has the barberry been banished from the hedgerows of England, where it formerly grew in great abundance?

Because it was generally believed to be injurious to the growth of corn.

This belief has been treated as a vulgar prejudice; but the fructification of the barberry is incomplete, unless the stamens be irritated by insects, when the filaments suddenly contract towards the germ. The flowers are therefore, by a beautiful arrangement of nature, peculiarly attractive to insects; and thus the barberry may become injurious to neighboring plants.

Why are chestnuts best preserved through winter in sand?

Because, if there be any maggots in the chestnuts, they will come out, and work up through the sand to get air.

Why is fern preferable to straw for the bed between the layers of fruit?

Because it does not impart the musty flavor which is so often produced by the straw.

Why are the autumnal fruits, as plums, pears, &c. more crude and indigestible than those of summer?

Because in part, of the state of the constitution. Thus, at the commencement of summer the system is more nerved and braced by the atmosphere of winter and spring, and by the drier food which necessity obliges us to take at those seasons; so that the cooling fruits of summer are wholesome from their opening the bowels, &c. But it is not wonderful that a continuance of watery and nutritious food like fruit should, towards the autumn, produce debility in constitutions partly predisposed to it, by the continual and relaxing heat of the summer months.—*Knowledge for the People.*

A FARM.

The editor of the Vermont Chronicle in a letter from Wilkesbarre, Pa. June 13, gives the following account of a farm which he visited near that place.

This farm extends from the bank of the river one mile, embracing in one rectangular plat 160 acres of level bottom land. I was shown first a field (25 acres) of Indian corn. This was undergoing the first dressing with the corn harrow and awaited the second and third dressing by the implement called the cultivator — the hoe not being used at all. Sixty bushels to the acre is the ordinary yield. Adjoining this was a field of 25 acres of oats, in excellent condition and promise. I was next shown a field of about the same quantity of wheat, of the species blue stem and white flint. Thirty bushels is an average yield to the acre for wheat on this land. This crop was suffering from the Hessian fly. On examining several stems I found, near the ground and imbedded beneath the outer sheath, from one to five of the flies in the chrysalis state. The effect of this is to weaken the plant and cause it to fall down, perhaps to break off and die. After the fly is hatched it does no injury to the wheat. This fly is doing great injury to the wheat in this region. Let me suggest to the bug-catchers to devote more attention to the whole natural history of insects, especially pernicious ones. The man who will develop the changes and periods, and habits of the Hessian fly, the cut worm, &c. with a view to remedies for their ravages, will do the state more service than the barren exhibition of fifty cabinets of insects with pins stuck through their backs. The cut worm is also making great ravages with the corn. My agricultural friend says that in his experience, he has found deep and thorough ploughing the most effectual remedy. The worm or its eggs, lying near the surface, if the soil is turned but slightly, the insect is soon warmed by the sun's influence, and awakes to life just in season to cut the corn in its tenderest state. In the other case, it does not emerge till the corn is out of its power. He has detected two species of equal numbers, a large and a small. Both are indifferent as to what they eat,—they eat the first thing they come at whether corn or wormwood.

My friend next shewed me a pasture of 25 acres, in which were twenty head of cattle, mostly cows of the Durham Short Horned and Devonshire breed. These were in so good case, so sleek, and so well favored, that to one who the past winter, had lived in the region of scarcity, it was truly a relief to the eye. The animals seemed to have an instinct of their good case and the source of it for they came around their master like so many dogs; one pulled his handkerchief from his pocket, others sought his hands and face with their gross tongues. Foremost among them was the bull denominated Jack Downing, three years old, weighing already twelve hundred pounds, and giving promise of celebrity perhaps equal to his namesake.

Mr B. stated that he usually cut sixty tons of hay, and was in most successful use of the patent revolving horse rake. With a horse and boy he does the work of six men with the common rake or from two to three acres per hour. He says, that to adapt the rake to rough ground, it is only necessary to make the rake shorter — say six feet instead of ten. He deplors the dilatoriness of his fellow farmers in seizing hold of the improvements in utensils, in modes of cultivation, and in the reading of agricultural papers.

All the land of this farm is now worth \$100 per acre. The average net profit of the whole may be estimated at \$10 per acre. Prices for two months past as follows: wheat \$1.25; corn 75 cts.; oats 50 cts.; hay \$10; flour \$6 25. The prospect for crops of grain in the country generally the ensuing season, is poor, and high prices are anticipated. Crops in this valley are better than in other parts. I find the severity of winter before last, made great havoc among trees in this region. Peach trees nearly all destroyed — plums, a great many — also cherries and pears, together with some forest trees. I left the premises of this plain, unpretending, but successful farmer, with as much satisfaction as I should a model farm of high scientific character; inasmuch as the former is the realization of the latter — its ultimate aim and result.

SILK CULTURE IN KENTUCKY.— Extract of a letter from one of our subscribers in Danville, Kentucky:

"I, as well as many others in our state, are engaging in the culture of silk. Some silk has been raised in our state for 12 or 14 years, from the native mulberry, which is very abundant, and makes silk of good quality. I have from 25 to 30,000 plants of the white mulberry growing from the seed sown last spring. They are very flourishing, and I have no doubt but will do well in our climate. I shall procure a few thousand of the *Morus multicaulis* this fall and next spring, and extend my native mulberries to several thousands believing, from some little experience and observation, that as good silk can and has been made from that tree as we ordinarily see in the market. I shall feed from 4 to 600,000 worms next year on the native mulberry, which is the best evidence I can give of my confidence of its answering every purpose, and making silk of good quality."— *Gen-Farmer*.

MORE THAN A BURSTER! — Mr J. A. Morton of Hadley just sheared from a Merino Buck, eight pounds and two ounces of fine wool! Who can go ahead of Squire Morton?— *Northampton Courier*.

AN ADMIRABLE INVENTION.— We yesterday examined Mr Edward's Forcing Pump, now being exhibited at Riley & Kinney's, 68 and 70 Cornhill. We never have seen an invention which we are able to recommend to the public with more decision and satisfaction. We conceive it to be a public benefit — and as soon as its superiority is made known it must supersede most of the pumps now in use for many purposes. It is very compact, and occupies but little room — with simple and strong machinery. It stands upright like a common pump, and while it draws the water from a well with the requirement of but moderate power, it will force it *in a steady stream at the rate of over 60 gallons a minute* to the roof of a four story house. *We have seen the operation*, and therefore state this with confidence. A reservoir can thus be filled at the top of a house for use in the chambers, or for bathing, in a few moments. After affixing a hose, the roof and outside of the house may be washed; or in case of a room catching fire, it may be flooded with water in the *same time required to obtain one bucket*. A garden may be watered by it — and as a convenience and protection, being in reality a miniature fire engine, it will become in great requisition. Colonel Amory and Mr Barnicoat give it their decided approbation. We advise gentlemen who are building to call and examine it before they affix other pumps to their houses, when this, which centres in itself so many advantages, costs but about the same amount.— *Galaxy*.

SEAMENS' LAMP.— This is the name given to an improved lamp, constructed particularly for use on ship-board; but may be advantageously employed in mechanics' shop and elsewhere on shore. It is so contrived, that when hung beneath a vessel's deck at sea, it will constantly maintain a perpendicular position — the bottom or stand being loaded, and the body connected by a chain with a guard above, which answers the double purpose of reflecting the light, and protecting from heat the wood work from which it may be suspended. It is a simple, but evidently a very economical affair; as it probably costs but a trifle more than the ordinary tin or japan lamp; while it cannot but insure a great saving of oil — being free from liability to overturn, and when properly trimmed emitting less smoke and consuming less oil than most others which afford the same quantity of light. For the cabin, the steerage, or the fore-castle, no article of the kind can be better adapted. They are manufactured by Mr William Howe of Boston, and may be purchased in that city of A. Fearing, & Co. No. 1 City Wharf. A specimen may be examined at the Inquirer Counting Room.— *Nantucket Inq.*

Mr Abel Williams of Ashfield, has invented a

machine which he calls the *Potato Cutter*, by which, in three minutes time, a bushel of Potatoes — Turnips — Apples — Pumpkins and other fruit, may be cut sufficiently fine for sheep — cows — and other cattle. The price of the machine is from \$2 to 2 50. It may be seen at the Cattle Show Oct. 12th, 1836, in this town. We hope some of our mechanics will invent a *simple cheap machine* for rasping Beets, applicable to family use, as we are satisfied it can be done.— *Northampton Courier*.

A discovery has been made, which has created some sensation among the manufacturers. It is a process for breaking flax. The flax has the appearance of silk, and is capable of being made into the finest thread, for the construction of veils, lace, cambric, &c. The texture is pronounced more beautiful than anything of the kind before manufactured.— *English paper*.

USEFUL INVENTIONS.— Mr Rufus Porter of this city, the inventor of a large number of labor-saving machines, proposes to put ten of his useful improvements into a joint stock company of \$20,000 (consisting of 20 shares of \$100 each,) for the purpose of proceeding immediately to manufacture the articles. Not more than five dollars per share will be required until at least three of the said inventions shall have been patented, and the business of building or manufacturing the same shall have been established. The profits arising from these will be applied to introducing the others in the same way, so that it is believed the whole may be brought into use without any farther instalments being required, and none at any rate will be required except by a vote of two thirds of the stockholders. After the business is fully established, the profits will of course be divided among the holders of the stock.

Most of these inventions and improvements have been tested and found to operate in the most satisfactory manner. One of the most important, as we think, is the Curved Float Water Wheel, which by frequently repeated experiments evinces a superiority of nearly fifty per cent over the ordinary water wheel, yet is in fact one of the cheapest construction.

The plan adopted by Mr Porter for bringing his improvements into use is certainly a rather novel one, yet we do not perceive that it is open to any objections. A bare examination of the models of these inventions is sufficient to satisfy any one of their practical utility, and we have no doubt the stock will soon be taken up.— *Daily Times*.

NEWSPAPERS.— The safety-valves to the political world, through which escape the superfluous steam that is generated by the undue heat of party warfare.

THE HARLEIAN DAIRY.

BY H. C.

Milk, next to bread, is undoubtedly one of the most general and important articles of human diet. None is more universally salutary, and none more nutritious. To children it is next to indispensable; aged persons who are accustomed to it, find it extremely conducive to their comfort; and return to its use with even a stronger relish than they had for it in childhood. It is an important condiment with much of our food; and it is capable of being used in almost countless variety of delicious and nutritious forms.

Of the various animals whose milk is employed for human food, the cow, both in respect to quality and quantity, is most generally preferred. Goats, asses and mare's milk are used; but for convenience, nutritiousness, and quantity, the cow is above all others to be chosen; and, as far as food is concerned, may be considered among the greatest blessings which Divine Providence has bestowed upon mankind. As a matter of diet, there is nothing which in proportion to its weight contains so much nutriment; and as a beverage, to a simple and unadulterated taste, none can be more grateful. In the country, where it can be had pure and in abundance, it ought to constitute a great article of food for children and young persons; and the miserable and pernicious and perfectly innutritious substitutes of tea and coffee, ought to be kept entirely out of their reach. In cities, however, pure milk is almost as difficult to be procured as pure water. In New York city, for example, the milk is first deteriorated, if we may be allowed to state, in the cow's udder; that is, where cows are fed upon distillers' swill, with scarcely any meal, and with hardly hay enough to form a cud, the milk produced is of a very inferior quality; besides, with a large proportion of the milk-dealers, though not all, it undergoes the ruleable and established dilution of one quart of water to four of milk; in addition to this, if it goes into the hands of the grocers, as in general they are too *modest* and *humane* to sell anything like *strong* drink, it commonly undergoes another application from the town pump. Indeed, we state from the best information, that there are grocers in this city, who, without any aid from the cow, or at least the slightest possibility, have offered the milk-men, when the supplies of the milk-men for their customers fall short, to furnish them from their own (the grocers) resources, what they may need to make their supplies sufficient: that is, they iterally manufacture the milk, as we sometimes say, "out of the whole cloth." The process, we understand, is this: to take some Indian meal of the white groud seed variety, and pass some scalding water through it; and this water, dashed with a slight touch of milk, as Broomfield calls it, "three

times skimmed sky-blue," can be offered at five cts. per quart; and at this rate is actually vended to the poor wretches, who want their cent or their two cents worth for their tea and coffee. Now whether this be or not be a real Yankee trick we shall not venture to surmise, but the ingenuity of its performance belongs to the veritable city of Manhattan. It is, however, all of a piece with many of the London tricks, which London cream is readily manufactured out of flour or magnesia and milk to a consistence to suit the most fastidious. The adulterations of human food, however, where it is susceptible of being adulterated to a profit, are most obvious and enormous, and it would be quite fortunate if all of them were as innocent as the above.

The adulteration of milk, the price obtained for it, and the frauds practised in its disposal, induced William Harley of Glasgow, an active and enterprising citizen, a few years since, to form a milk establishment, of considerable extent, in the neighborhood of that city, for the supply of the market with this article, in a pure and cleanly condition; and, indeed, so far as depended on human skill, of the very best quality. This dairy attracted very extraordinary attention from its novel and convenient arrangements, and the admirable manner in which the whole business was conducted. It was visited as a matter of great curiosity by vast numbers of people, including many of the nobility, and several of the princes and sovereigns of Europe; and as far as concerned the object of furnishing an article of the best quality, and in the best condition, and with scarcely the possibility of adulteration, until it left the hands of the vender, its purposes were admirably accomplished. It was not, we believe, equally profitable to the enterprising proprietor; the establishment was evidently conducted on too expensive a scale to be expected to yield large returns. Harley has given a detailed account of the establishment, and of his own experience in the dairy business. It is a book containing much valuable information; and I have thought it would be both interesting and useful to the readers of the *New York Farmer* to have an account of it.

I shall not undertake a particular description of the building. The largest amount of cows kept at any one time was two hundred and sixty. The largest building contained stalls for one hundred cows. There was an appendage which deserves particular attention. At the end of the house was a large tank or reservoir, as a depository for the cows' urine; it was fifty feet long, six feet wide, and six feet deep. The surface of the tank was on a level with the bottom of the cellar; it was covered with flat brick work, arched, leaving a space in the centre of the arch four feet square, for taking out the sediment. This aperture was

surrounded by a wall sufficiently high to prevent the dung from going into the tank. This was an admirable provision for saving a substance of extraordinary value to the farmer, where he can avail himself of it. In Flanders it is saved with the greatest care, and mixed with a rape of oil cake, as the very best manure they can apply to their lands. The only provision in this country, on an extensive scale, for saving it, which we have met with, was at the farm of Robert Smith, Esq. near Baltimore, where a hundred cows were kept; a large reservoir was made in the yard, and covered drains were formed for the purpose of conveying the urine to this deposite; from which it was taken, and by a machine like that used for sprinkling the streets of cities, was distributed over the fields. The value of this manure is very great, and is not yet appreciated among us. No provision is made for saving it in any of the cow-houses of New York city, where some of the milk establishments exceed three hundred cows, and the feed to which they are accustomed produces the most abundant secretions of urine.

The grand building in the Harleian dairy, which had stalls for one hundred cows, was ninetyfive feet long by sixtythree feet wide within the walls. It had vaults under the whole, divided for the purpose of receiving the dung, of storing potatoes and roots, and for an apartment for keeping the cows that were dry and prepared for fattening. This apartment being quiet, and having little light, was deemed better adapted for carrying on the process of fattening than the other cow-houses; darkness and quiet generally contributing to assist the progress and making the cattle much sooner fit for slaughtering.

It was deemed highly important, and it was so contrived, that the house should be perfectly ventilated, and at the same time preserve an equal temperature — both which points were conducive to their milking and fattening, and the cattle were in this way kept in the best health and condition. The heat was generally kept at the temperature from 60 to 64 degrees of Fahrenheit's scale; and as the walls were plastered carefully, the cattle never experienced any injury from cold, even in winter. A direct current of cold air suddenly admitted, was found to be exceedingly injurious and much pains was taken to avoid this.

The floor on which the cows stood was raised six inches above the passages; this not only showed the cows to advantage, but kept them dry and clean; and two and a half feet of the floor next to the trough was made of composition similar to what is commonly used in making barn floors; because the principal weight of the cows being upon their fore feet, and, as in lying down the whole weight is upon their knees, it was obviously desirable to have that part of the stall as smooth

and soft as possible. In all cow-houses, he remarks in continuation, the front part of the stall should be rather lower than the back part, since it would enable the cattle to lie easier; and besides this, they would not be apt to slip their calf.

The ordinary manner of fastening cattle in cow houses, is to fix the neck of the animal between two stakes, which are commonly called stanchions. This mode is greatly disapproved by Mr Harley, as it prevents the cattle licking themselves. The indulgence of this propensity he deems of much importance to the health of the animal, as it contributes like currying to promote a free perspiration, and increase the circulation of the blood, and thus conduces to their general health. He deems the free ventilation of the cow-houses of great importance; as otherwise, the milk is often tainted by the bad odor of the houses, as has been experienced even in passing it from the cow into the picher. As the dung was preserved from the wind and weather, it was considered worth 25 per cent more than that which had been so exposed; and the urine was sold by the butt of about four hundred gallons.

The milk-house in its construction was particularly favored by the nature of the ground. It was long, high, and wide, and every possible means employed to have it cool and airy. The floor was paved with stone of the best quality, the milk-dishes were placed upon the pavement on each side, leaving a space for a passage in the centre; they were then filled with new milk, a plug was put into the cesspool; the stop cock at the end was turned, and the water allowed to flow until it covered the floor where the milk vessels were placed. The house was in this way kept cool, and the floor was regularly washed and rubbed with a dry cloth; and this, with a complete ventilation of the premises, kept the air pure. The churning-house at Willowbank, was ventilated and lighted by windows in the north side, and in the roof, covered with fine wire gratings. The milk-office contained the large tub for receiving the milk from the cows, from which it was measured out to the distributors. The manager had a house within the premises; the dairy-maid and one or two of the servants were accommodated there, it being necessary they should be on the spot night and day. Two apartments, one for the men, another for the women, were allotted for the purpose of keeping their clothes; and that they might more conveniently change them, before going out to deliver the milk, numerous clothes and towel pins were fixed in the wall; and the rule to be implicitly observed by the servants was, that their hands and face washed, and their dress to be neat and clean. Cleanliness, indeed, was always regarded as essentially necessary in this and every part of the establishment.

Milk is often either spoiled or deteriorated from the vessel not being properly cleansed. If milk is put into a place not well ventilated, or where other articles are kept, it will affect its flavor. This was often ascertained by some of the Willowbank customers having their milk deteriorated, after remaining a short time with them, while it retained its rich flavor with others, who received it from the same pitcher at the same time.

There was a steam engine connected with the establishment, for various purposes; for heating water, for steaming provender, for propelling a threshing machine, a turnip and potato-slicer, a hay and straw-cutter, a grain-bruiser or grinder, and a churning apparatus. The steam-engine was one of about six-horse power; but the boiler could have supplied an engine of twelve-horse power. Coiled within the boiler was a leaden pipe, 150 feet long, and 2 inches in diameter; cold water was admitted at one end of this pipe, by a stop cock, and the water was heated by passing through the boiler. Branches were taken from the other end of the pipe to the scullery, hot baths, bakery, &c.

A steam-pipe, from the boiler, was introduced into the steaming vessels, for preparing food for the cattle, so that one fire of dross was sufficient for the whole establishment. The milk office and other apartments were also heated by hot water vessels. The steaming vessels were made of plate iron; the one for cows was ten feet long, four wide, and four and a half deep, with a semi-circular top, hinged on one side, and lifted by weights and pulleys; the lid was formed round the edges, to prevent the steam from escaping. The cut provender, consisting of turnips, hay, &c., was put into this vessel in layers, well salted, and with a sufficient quantity of water. The vessel had a false bottom, perforated with holes, under which the steam was admitted. The potatoes were generally steamed by themselves, in a vessel, and the fresh water, which was deemed unwholesome, drawn off. The potatoes, turnips, &c. for the horses, were washed clean; those for the cows were not washed, but put in by themselves; and when at the boiling point, the first water was let off; they were then mixed with turnips, hay, &c. in alternate layers, and sprinkled plentifully with salt.

Every milker had a strong tin vessel without a lid, which held about forty quarts. As each cow was milked, the milk was emptied into this vessel, which was placed in the transverse passage, to be out of the reach of anything that might fall into it, if it were placed in the passage behind the cows. When the vessel was filled it was carried to the milk-office, and emptied into the receiving tub, and the quantity marked upon a slate by the clerk or person in attendance; this task was re-

peated till all the cows were milked, and the whole transferred to the milk-book.

Each distributor had a pair of milk pitchers, with lids to fit tight, which contained from twelve to eighteen quarts. These were locked and secured to prevent adulteration. Every possible pains was taken to preserve the milk free from any extraneous substance, and to deliver it pure to the customers.

We proceed now in our account of the Glasgow Dairy or milk establishment, quoting freely from the accounts given of it from Harley himself.

As there would occasionally be a surplus of milk, what was returned or not wanted for the customers, was set for cream. Most of the vessels for raising cream were made of oak, and were well washed, boiled, and rinsed every time they were emptied. To prevent the bottoms from twisting or warping by boiling, there was a second bottom transverse; and the two bottoms were pinned together as in ship building. They were twentyseven inches in diameter and five inches deep.

We believe that wooden vessels are, after all metal to be preferred for the keeping of milk. Metallic dishes of every kind are liable to be corroded by the acid of the milk, producing in some cases a compound absolutely poisonous; and earthen vessels, which are glazed with lead, are liable to the same objection. Glass or China would be too expensive, and not procurable; wooden vessels may require rather more care in order to keep them clean, but there is no impracticability in the case, otherwise they are liable to no objection.

The vessels for holding milk or cream for scouring stood in the churning-house or an adjoining apartment; the milk or cream stood in them until it was thick and sour, without which it would not churn to advantage. There was a vessel for each different milking, as it was found injurious to mix the milk; and if milk and cream were put in at different times, it was always well stirred. It was found, however, that the preferable way was to keep every quantity distinct, and to allow it to become sour by itself.

Large stands were filled at the wash trough and carried to the head passages at feeding time; from these the feeders gave a small additional quantity of food to the cows as they required it; but great care was taken not to give too much to any. Some distiller's wash, or waters, or a mixture of both, was given them to drink; and when the animals were satisfied the vessels were removed. There was also a feeding vessel or tub for each cow, which was made of oak, twenty inches in diameter, and ten inches deep.

The byemen were each supplied with a rake, a broom, and a forked stick, for gathering up the

dry litter to the fore feet of the cows; these were preferred to iron, which sometimes injured the animals' feet. Each milker had a coarse towel, a washing cloth, a currycomb and a hair-cloth.

Early in the season, part of the proprietor's farm and some small fields contiguous to the cow-house, were sown with barley and grass seeds; these were watered with cow urine by means of an engine upon the principle of a fire engine. There was also used for that purpose hand-barrows with broad wheels, upon which barrels were placed filled with urine. Under the barrels were placed conductors about eight feet long, perforated with small holes; these barrels were easily wheeled along the rich soft ground, which would have been destroyed by horses and carts. The urine was carted to the fields in large casks, from which it was carried in stands resting on spokes to the engine and barrows.

The grass of the fields thus irrigated was cut 5 or 6 times a year; and though not very long in the blade, there was a great weight of produce. Indeed, it was so thick and rich that it would have rotted unless cut often.

The first cutting generally commenced about the middle of April, and was continued once a month. The grass was cut during the day, when the weather was wet or moist; but when it was dry, it was cut late at night or early in the morning, and the field irrigated immediately after being cut; the process was sometimes performed during the night. Sir John Sinclair visited one of these fields, which has been cut sixteen times in three years.

There was a public washing-house adjoining the dairy, all the soap suds from which was carried into a well or tank, and applied in the same way as urine; and sometimes the two liquids were mixed together, or if the weather was very dry the urine was diluted with water. If private families were to preserve their soap suds, and the urine of their cow, if they have one, it would be found of essential benefit in manuring their gardens.

The provender commonly used at Willowbank consisted of hay, straw, grass and green barley; also Swedish turnips, and the different varieties of Aberdeen yellow, red tops, &c., also mangel wurtzel, carrots, cabbage, ground oil cake, bruised beans, and other grains.

Mangel wurtzel was recommended to the proprietor as provender for his cows upon an economical ground. He accordingly made a trial of it in 1814, but the result did not answer his expectation. It was not productive as a crop, except in particular soils, such for instance as suited carrots. Besides it did not stand the frost, and it was found necessary to be taken up in the fall, the tops cut off, and the roots used during the winter,

mixed with other provender. A trial was made with this root and Swedish turnips; a corresponding weight of each was given to two lots of cows of equal numbers, and great attention was paid to the quantity and quality of milk produced, and the improvement in the condition of the cattle. In these respects, however, there was found to be little or no variation. The quantity and quality of the milk, and the improvement in the condition of the cattle were much the same; but as the mangel wurtzel did not stand the frost, and moreover required a deep soil in the cultivation, the Swedish turnips were necessarily preferred.

About this time, Mr Coke of Norfolk, lost some cows, and other agriculturists had their cattle much injured by cutting mangel wurtzel; a circumstance which excited intense interest, not unmixed with serious apprehensions, and gave rise to much discussions in the periodicals of the day on the merits of that root. There was no instance, however, in the Willowbank Dairy of any bad effects resulting from the use of it. The quantity given as a mixture, however, was comparatively small, except on the occasion just noticed, when trial was made of it with the turnips; and before that trial was made, the roots had laid a considerable time in a dry cellar, whereas Mr Coke's cattle had the roots and leaves when full of juice.

These statements by Mr Harley, seem to me of considerable importance. I have had considerable experience in raising both the mangel wurtzel and the ruta бага. The mangel wurtzel is a far less certain crop than the ruta бага. It yields often a great amount to the acre, though either through the seeds not germinating, or the plants being cut off after it came up, there were always large vacancies, however, I usually filled up with ruta бага. The mangel wurtzel was liable to be injured by the frosts, and in my own experience it has not kept by any means so well as the ruta бага. As feed for milk cows, I have found them always very fond of it; that it greatly increased their milk; but at the same time rather disordered their bowels and very much reduced their flesh. I have given it however in good quantities, at the rate often of a bushel after being cut, to a cow per day. Some gentlemen, for whose skill and experience I have great respect, have used and highly approved it. John Lowell, Esq. speaks of its use for milch cows in terms of strong commendation. To ruta бага I have no objection to be urged excepting the taste, which Cobbett, in his enthusiasm for ruta бага, insisted upon it, that this peculiar flavor was absolutely agreeable; but to many persons it is extremely nauseous. If the turnips are sound and no decayed parts are given, this taste is not always perceptible; but it becomes so as soon as it is heated, the

butter being melted on the cream or milk applied to tea or coffee. There is said to be a remedy for this taste, by using a very small quantity of saltpetre and water, in the milk as it comes from the cow; but I cannot in this case speak from experience.

Mr Harley continues his account by saying, that instead of attempting the ill-judged economy, which pinches the cattle of their food, every attention was paid to make each cow eat as much as possible, without running into the opposite extreme of over-feeding; and for that purpose the mixture was occasionally varied; and sometimes a few raw potatoes or turnips were given by themselves, which tended to whet their appetite. There is a Scotch proverb which says, "the cow milks by the mow," and as the object of the Harleian Dairy was to fatten as well as to yield, the more care and good management were exercised in their feeding, the sooner these objects were accomplished.

Young grass and green barley, but particularly young clover, contain a great quantity of juice, and fixed air, which has often proved injurious to cattle. The irrigation with urine made these crops luxuriant and rich; the first cutting was therefore mixed with a large proportion of old hay or straw, to which was superadded a good quantity of salt, to prevent the cows from swelling or blowing. When wet, a greater proportion of these ingredients was used; this mixture was allowed to stand from twelve to twentyfour hours, and was frequently turned and shaken to prevent heating. Young or wet clover was never given without a mixture of dry provender. By this means the rich juices of the green food were absorbed by the dry fodder, which enabled the cattle to feed freely, without the risk of injury.

In proportion as grass decreased in the autumn turnips became a substitute. As the season advanced when grain and distillers' wash were plentiful and cheap, which was generally the case in winter, a large proportion of these were given with the more succulent food; but they were apt to make the cattle grain sick, and to prove injurious to the stomach of the animal. It has been ascertained, if cows are fed long upon grains of distillers' wash, their constitution will be quickly destroyed; cattle thus fed should not be kept longer than eight or ten months. One effect of this copious feeding upon distillers' wash, as we have learned at the New York city establishment, is, that after a while the teeth of the cows thus kept become loosened, and they are unable to masticate any hard or long food. It seems to be a pretty fair inference, that where the constitution of the animal becomes thus affected or diseased, the quality of the milk is likely in a correspondent measure to be injured. Of this, however, the

buyer is not able to know anything, and it is not for the interest of the seller to inquire too particularly.—*New York Farmer.*

A LEAF FROM THE NOTE BOOK OF A FARMER.

Some experience, and more observation, has convinced me that one of the most common errors into which farmers fall, is undertaking more work than they can perform; hence I insert the following *Mem.* Never to lay out more work than there is a reasonable probability of my finishing in good time, and in good order. Labor is capital, and time is capital, and a man should know how much of both he can bestow on any given part of his farm before he undertakes its cultivation. Serious losses result from a neglect of this rule, for there are many farms, and many operations in farming, in which a failure in time or labor is fatal to the hope of profit. There are many farms so situated that the crops will not pay the expense of cultivation, unless manure is used to a considerable extent; now if the farmer plans his business on so extensive a scale that he has no time to collect and apply this essential article, his inferior crops will prove a source of loss instead of gain. If he plants a field of corn, but has so much other work to do that he can hoe it but once, and that slightly, when two thorough ones are required, he must not complain if his neighbor, who employs a capital of both time and labor on his corn, should gather a harvest far exceeding his own. If he allows his manure to lie in the barn yard through the summer, washing in the rains, and wasting in the sun, because he had not time to apply it to his corn or barley grounds in the spring, he may be sure that he is not in the way to get the most profit from his farm, or the most benefit from his barn-yard. The man who has no time to clean his seed wheat, because he is so driven with work, will most likely find some five or ten per cent of his crop will be chaff and cockle at harvesting. But there is no end to the inconveniences that result from attempting too much on the farm; from beginning to end it is evil; it makes the whole process of farming uphill work; it allows not a moment for relaxation or improvement of the mind; it places the farmer and his work in wrong positions, the latter always driving the former; and he who does not correct the error in time, will find himself driven out of house and home.

Mem. Never to willingly subject myself to a charge of ignorance on any subject of permanent utility or general knowledge, not of a kind strictly technical or professional. The notion so prevalent, that the farmer, from the very nature of his avocations, must necessarily be ignorant of everything that does not relate to his employment, should be exploded, and none are more interested in the

matter than the farmer himself. It may be asserted, that few professional men, who are zealously and successfully engaged in their several pursuits, have more hours to devote to the acquisition of general knowledge of a useful kind, than the farmer. All that is wanting is the taste for knowledge — and this taste is usually an acquired one — and the means of information will follow as a matter of course. Papers, periodicals, books, are all so plentiful and so cheap, and information on most topics has been so condensed, that to plead want of means, or want of time, for the acquisition of knowledge, in sealing our condemnation with our own hand. True, a farmer must work, and work hard — to labor is his glory, and in it he finds his reward. The free laborer who tills his own farm, has a prouder patent of nobility, and can trace a longer pedigree, than any monarch-made race of peers on earth; but he must never be ashamed of his calling, or ape the follies or vices of those who ridiculously deem themselves above him.

Mem. Always to perform whatever I undertake. The celebrated John Hunter, towards the close of his life, was asked how he had been able to accomplish so much labor. He replied, "by always performing what I undertook. If an object presented itself to me as desirable to be accomplished, I first inquired whether it could be done — if it was necessary it should be done — and these two points once settled, the conclusion was I could do it as well as any one else, and by perseverance it was done." This is the true course to be pursued by the farmer. Only let him determine what is indispensable, and necessary to success in any farming operation, and he will rarely fail. The object and the means of attaining it should be distinct in the mind, and these should be unhesitatingly pursued. Perseverance has wrought wonders in the farming world, and its efficiency is not by any means lost. The most highly cultivated parts of Europe, were considered as hopelessly barren; and our country exhibits some more honorable examples of what skill and determined industry can accomplish.

Mem. Always to pay particular attention to the garden. Some farmers, by their continued borrowing, seem to believe in the maxim, that "*good neighbors are half one's living,*" but this I would have apply to my garden. If properly selected, well manured, and carefully planted and tended, a garden plat of half an acre will half support a moderate family. The garden forms a place into which a thousand scraps of time can be profitably cast, and health and pleasure be, as they unhappily not often are, combined. Flowers may be called the poetry of the farm, and they are so closely allied, that he who loves not both of them, may be said to have but half a heart, and the woman who neglects them is — is unpardonable.

Mem. Never to suffer the season of gathering and securing seeds to pass, without laying in sufficient quantity for my own use, of the very best of all the necessary kinds than can be procured. It costs but little trouble at the time; it enables you to be certain of the kind and quality; and when the season of planting or sowing arrives, saves you an infinite deal of vexation and trouble in looking them up. The governing maxim of him who would be a thrifty farmer, so far as concerns what can profitably be raised on his own farm, must be — *always to sell, never to buy.*

Mem. Always to pay particular attention to the boundary fences of the farm; certainly to those which serve as division fences between me and my neighbors. It can hardly be questioned that two thirds of the difficulties and hard feelings which exist among neighbors spring from this very source. A law suit and a protracted quarrel has been bequeathed to a third generation in consequence of a single neglected rail. This source of contention may be stopped in the very bud, by a little attention to the fences early in the season, and occasional repairs as they are required. If a man was to judge by the condition of the fences on many farms, by the top rails fallen off and lying rotting in the grass, by the unruly cattle, sheep, and horses, that seem to have taken undisputed possession, he would arrive at the conclusion that the owner thought it beneath him to pick up a rail, replace a post, or pile a few stones, that may have fallen down. Many farmers adopt a course, of all others the best adapted to make their animals unruly and troublesome. If a few rails get down, or a top bar or two falls, instead of making a thorough repair of the damage at once, they go to work by piece-meal, adding a rail or bar at a time, giving their cattle and colts the very practice necessary to enable them to obtain perfection in jumping; a practice which rarely fails of complete success. It may be laid down as a maxim, that one unruly ox or horse, or even sheep, when not confined, but allowed to run at large or with the stock on the farm, will occasion more damage during a season than they are worth; not to speak of the vexation and loss of time they produce. The only safe place for an unruly horse is a stable; the only fit place for a troublesome ox or sheep is the slaughter house.

Mem. "Never to put off till to-morrow what what may as well be done to-day." This maxim, if acted up to, would prevent an infinite deal of trouble. Pure laziness, or pure carelessness are continually prompting us to take our ease and let the world slide; and in no sphere of life does the indulgence of this disposition to procrastinate produce more injurious effects than in that of the farmer. I never knew a "time enough yet" man, who was not always behind his work, and in consequence a serious annual loss. There are some

crops in season, had better not be put in at all, as labor and seed are thus prevented from being thrown away. It is besides always easier to perform work in the proper season than at any other time; for instance, how many cold fingers would be prevented if farmers' corn was gathered and husked in October, instead of remaining on the stalk or in the shock till November or December; and how certainly would the waste and inconvenience of frost-bitten potatoes be obviated if they were secured in the cellar, or buried in the holes the last of September or the first of October. All crops should be gathered when they are ripe: exposure after that period must, from the nature of things, be injurious.

Mem. Always keep out of debt. This rule must be inflexible; or if not absolutely so, the only exception must be in the purchase of land. The man who pays down will save twenty dollars in the hundred in his trading. By running in debt a few times, a man acquires the habit of purchasing a thousand things of which he stands in no need; one of the very worst habits a farmer can acquire, and which is sure, if persisted in, to reduce to poverty. Never buy an article because it's cheap, till you have inquired whether you cannot as well do without it as to have it; and whether the money you must use cannot be more profitably employed. If you need a thing pay for it; and save your 20 per cent. by paying your mechanic, your day laborer, your bookseller, and your Printer, down.—*Gen. Far.*

CHINESE MULBERRY.—Although defoliation might injure or destroy some trees and vegetables, the leaves being to the vegetable what lungs and stomach are to the animal life, it does not follow that all trees and vegetables suffer alike by defoliation. The grasses, the box, the willow, and some others, may be cut, headed down, or the leaves plucked almost for an indefinite period, without effecting destruction. Do not old pastures produce better and sweeter grasses by frequent cropping, that when first laid down? Shall it then be thought wonderful that the Chinese *Morus Multicaulis* will bear defoliation several times during the same season? From experiments already made, it appears that this valuable plant has been plucked of its leaves for feeding worms, not less than four or five times without any injury to its growth,—but the leading shoots must not to be topped;—and every successive crop of leaves are improved in number and weight. At the same time, the wood is acquiring hardness for future use. If the object be the formation of wood, then take off the leading end of the tree or shoot.

Another excellence of the Chinese mulberry is the richness of its leaf for feeding worms—while 100 pounds of white mulberry leaves are required

to feed worms sufficient to make one bushel of cocoons, 75 to 80 of the *Morus Multicaulis* will do the same thing; and while it is a full day's work to pick 100 lbs. of white mulberry leaves—with the same labor 500 lbs. of the *Morus Multicaulis* might be collected. And while it is generally allowed that it requires about 3000 worms fed on white mulberry to make one bushel of cocoons, the same quantity of cocoons have the present year been made with 2000 worms fed with the Chinese mulberry.—*Northampton Cour.*

DRYING FRUIT.—As present appearances indicate a plentiful supply of the kinds of fruits most commonly prepared for future use by drying, we copy from an Ohio paper the following description of a cupboard as it may be called, which will materially aid the operation. "Take two boards eighteen or twenty inches wide, and four feet long; on the top nail a cover, extending a little over the front; then make ten or twelve drawers, of the width of the inside of the frame, say three feet, and two or three inches deep, the frame of the drawers to be made of common stuff, and the bottom of narrow pieces of thin stuff, fastened five-eighths of an inch from each other. Nail pieces on the inside of the board frame for the drawers to slide on, and the machine is done."

Place the fruit to be dried on the slits of the drawers, and the air will circulate freely through the whole; it can be placed out doors, or in the house, as occasion may require, or the drawers may be taken out for the action of the sun upon the fruit. The whole is cheap, easily made, and very convenient.

A TEXAN.—I jocosely asked a ragged hunter who was a smart, active young fellow, of the steamboat and alligator breed, whether he was a rhinoceros or a hyena, as he was so eager for a fight with the invaders. 'Neither the one, nor t'other, Colonel,' says he, 'but a whole menagerie in myself. I'm shaggy as a bear, wolfish about the head, active as a cougar, and can grin like a hyena, until the bark will curl off a gum log. There's a sprinkling of all sorts in me, from the lion down to the skunk; and before the war is over you'll pronounce me an entire Zoological Institute, or I miss a figure in my calculation. I promise to swallow Santa Anna, without gagging, if you will only skewer back his ears, and grease his head a little.'

An Irishman had a bell hung in his lodging rooms with a string so annexed that he could ring the bell while in bed.—'And what use is that?' said one of his neighbors. 'Oh it is mighty convenient,' he replied, 'for when I have slept long enough I can ring the bell and wake myself up.'

FESSENDEN'S

SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture, and Rural Economy.

VOL. II.

BOSTON, OCTOBER, 1836.

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BOSTON, OCTOBER, 1836.

(For the Silk Manual.)

T. G. Fessenden, Esq. Editor of New-England Farmer and Silk Manual — I noticed an article in your last Manual stating the progress of one gentleman in Saco in the mulberry business in Maine. I was much pleased that he had entered into it so largely; his intelligence seems to be all that you have upon that interesting business. I will state to you the progress I have made and there are others in this vicinity making small beginnings. I have ten or twelve thousand plants, of four years growth. They are small of their age, as I thought not best to force the growth of them. I have one or two hundred that are six years old, but through inexperience in the cultivation and other casualties I get not much from them. One year ago last spring I transplanted from the seed beds twenty four hundred and thirty in a nursery form. They lived and have grown well this summer particularly. I have fed a few worms are made a little sewing silk by way of experiment for three years past. This season from my young trees principally, I have fed five-hundred worms, which far exceeded my most sanguine expectations; I had twenty pounds cocoons, chrysalis not killed, which produced one half pound raw silk spun on a common woolen wheel, having nothing better to work with, when doubled and twisted made three hundred

and seventy five skeins of sewing silk of the same length and number of threads as imported silk. Now sir, I should like to be informed through the medium of your valuable paper, whether my success has been at a medium rate or not, as those of longer and more experience in the business.* I hatched the insects in my house and fed them there the three first weeks, when I transferred them to an out building which was only roughly boarded where they made their cocoons; I think I shall double my quantity of silk another season, as I planted three thousand in addition to my former number.

I have the ground prepared for three thousand more next spring; my opinion is now confirmed in the business and I shall extend my operations as fast as my small means will permit me to do. I do not intend to sell many of my young trees, for when sold they are gone from me and I am so much behind in the business. Enclosed you will find a sample of the silk we have made this year, manufactured by my wife and daughter without any knowledge except what they gained by reading and very attentive practice, mingled with a good share of patience. If you think the above imperfect sketches worth noticing it is at your disposal. Very respectfully yours, &c.

JAMES WALKER.

Note.

* Considering that the cocoons were not killed previous to weighing, and that the machinery for winding was simple and imperfect, the product as above stated was very satisfactory. In France, according to J. D'Homergue, it requires twelve pounds of cocoons to produce one pound of raw silk; eight pounds will in this country be amply sufficient to produce the same quantity. — *Fessenden's Silk Manual.*

Mr Walker deserves much commendation for his efforts in silk culture, and we are glad to perceive that he is determined to persevere, with such favorable prospects. — *Ed. Silk Manual.*

FACTS AND OBSERVATIONS.

The following is from an old number of the Memoirs of the Massachusetts Agr. Society.

The attention necessary to be paid to raising and feeding Silk worms, would form an agreeable and lucrative employment to those who are placed above manual services. There is no part of *America* wherein the silk worm cannot be supplied with proper feed: as mulberry trees will thrive with very little care, even in the coldest. We are informed that in 1789, no less than 5400 pounds of silk were raised in the cold and sandy territory of *Prussia*. Perhaps no country possesses greater advantages for this purpose, than *America*; and should this manufacture ever be actively pursued, it will not be extravagant to expect silken stuffs as cheap as any cloth made in *America*.

To shew with what ease and convenience the worm may be fed, the following directions are extracted from some sensible letters, written by Mr. Joseph Clarke, of Northampton, and communicated by the Hon. James Winthrop, Esq., of Cambridge. To these gentlemen, the Society return their thanks, and will be obliged by any further communications to improve the agriculture and manufactures of our country.

Extracts from Mr. Clarke's Letters.

About ten years ago, I set over an acre of land with small mulberry trees, ten feet apart; they flourished extremely well, and in three or four years, they formed a perfect forest. From these I used to gather my leaves; but I soon found the trouble and expense was too great; for I was obliged in the latter part of feeding, to employ a great many people, or the worm must starve; having observed those trees, which were accidentally broken down, sprouted anew and luxuriantly the following year, determined me on another method. I had a small enclosure of very rich ground, about six rods square, which in the spring of the year 1793, I ploughed and manured well. Here I sowed my mulberry seed in rows, like carrots or parsnips in a garden, at suitable distances from each other for weeding and hoeing between them. The seed came up well, and the plants were kept quite free from weeds that summer; in doing which, you must be very careful, as the plants are exceeding tender; in this first weeding the fingers must be principally used.—The next spring before they began to sprout, with a scythe, I cut down all the bushes within two inches of the ground, and carefully weeded them. This method answered my most sanguine expectations; for by the middle of July, when the worms devour the most leaves, they had grown up three feet in height, and being cut with a sickle, furnished me with abundance of leaves, in a cheap, easy and expeditious manner. The same

method has been pursued with these trees or bushes ever since; so that you see there is no necessity for sowing the seed annually. A field once sown, will, for aught I can see, last a thousand years, if it be well taken care of. My mulberry trees are more flourishing this year, and yielded more food for the worms than they ever did before. This I attribute chiefly to the manure I put on them the last spring; notwithstanding they were cut down last July, they are now (October) about three feet high. My worms were hatched out the 24th of June, and continued eating just four weeks. They have consumed upwards of three thousand pounds of leaves, and the trouble of gathering them has been but little, compared with the whole business. A man can reap 3 or 400 weight within an hour; the expense and trouble are therefore trifling. I perform about three quarters of the business myself. The quantity of silk produced is about ten pounds; as to the quality I can in no way so well inform you as by sending a skein of sewing silk,* which I pray you to accept.

The idea that water is injurious to silk worms, is totally unfounded. My worms this year have been chiefly fed on wet leaves, gathered early in the morning, and as they grow dry in the course of the day, were sprinkled with water.† I have used in one day three pails full, in sprinkling the leaves, for I think it invigorates the worm in sultry weather. Hot water for the purpose of killing the chrysalis that is within the cocoon to prevent his making his way through, and spoiling the silk is never used. Hot water is only used when the cocoons are wound off into skeins. To kill the chrysalis, the cocoons are put into an oven, about as warm as when a woman takes out her bread; or they are exposed one or two days to the fierce rays of the sun. The last method is best as there is no danger of injuring the silk, as may be the case in the former way. Should the oven be a little too warm, spread your cocoons on a table in the sun for two days successively; if you suspect they are not effectually killed let them be out another day. They must be carried in at night, they must not be wet; if you wish to know whether the chrysalis be dead, take one of the thickest of the cocoons and cut it open; if you cannot perceive any life, you may conclude they are sunned sufficiently; should you perceive any signs of life, sun them another day.

* This Silk will bear a comparison with the best imported Silk.

† This candid statement destroys the idea of water being injurious to the silk worm, an opinion that has been long established and is still maintained in some late publications. To remove all doubt, (if any can possibly remain) the following mode is added, which will not only confirm Mr. Clarke's assertion, but teach

DIRECTION FOR SOWING THE SEED AND RAISING THE PLANTS OF THE WHITE ITALIAN MULBERRY TREE.

1. To sow an ounce of seed, prepare a bed 50 feet long and 4 feet broad. Manure it well with a compost composed of one third stable manure, one third ashes, and one third decomposed leaves from the woods, or garden mould; dig deep, pulverize finely, and then lay the beds off in drills 12 inches apart, one quarter or one half of an inch deep; sow the seed as thick as your onion or parsnips; cover with rich mould, press the mould down gently, but sufficiently to cause the seed to come into contact with the earth; and should the weather be dry, water the seed bed every other evening, it will assist in promoting the germination of the seed and vigorous growth of the plant.

2. Keep the beds clean of weeds; and give an occasional watering with suds and water, say once a week after they are up.

3. The second year, if not removed before, the plants must be removed into the nursery rows, which must be prepared as for any other crop. The ragged roots being taken off and the tap root shortened, the plants must be planted out 12 inches apart in rows three feet apart, the earth to be well trodden around the plant. As before, the earth must be kept open and free from weeds.

4. At two years old, the plants may be planted out into hedges, at 18 inches apart in rows six feet wide. The ground should be prepared as before directed, and some good rich mould put into the holes, to be pressed around the plant. If intended to be planted out as standard trees, 20 feet square apart would be a good distance; but in that case the plants should not be transplanted until they are about ten inches in diameter. In either case they will require trimming and topping, and if kept as hedges should be treated as other hedges are.—*Southern Agr.*

BERKS COUNTY SILK.—We have recently examined a specimen of *Sewing Silk*, the first ever manufactured in this county, and it was of such a quality, and the manner of its production so

us to prepare a stock of food for our worms, should any accident deprive them of the mulberry leaves, or should they be hatched before the trees have produced any.—Gather in the autumn, before the frosts commence, and in dry weather, the leaves of the mulberry tree, which must be dried in the sun, by spreading them on large cloths, reduce them to powder, and lay them up in a dry place; when it is necessary to feed with this powder, let it be moistened with water and spread round the worms, who will immediately feed upon it. Other food has been prepared to feed with, such as Lettuce, Endive, &c.; but we are assured by a person of great experience, that the silk produced by any other food than mulberry leaves is of an inferior quality, and the worms are sickly.

creditable, that it did our hearts good. It was the entire production of a young lady near Reading, one of Berks county's fairest daughters, who reared and fed the worms, spun the silk from the cocoons, and doubled and twisted it into skeins, all with her own hands. Here now is the example set to our young ladies, and we are persuaded they are about to imitate it, as a large quantity of mulberry seed has gone into different parts of the county from this place. How irresistible would be the charms of the young lady, when dressed in the fabric of her own hands' production, and how eagerly would the *beaux* press forward for her hand!—And well might they seek such wives, for they would be worth having.—*Reading Press.*

SEED CORN.

MR HOLMES:—Much is said and written of late on the choice of seed corn — some preferring eight, some ten, and some twelve rowed — some a large and some a small cob. When I select my seed corn I attend but little to the number of rows or the size of the cob, but to what the cob contains.

When we peel the trees of the forest where the bark is the principal object we choose the largest trees because the bark is the thickest, the trees longest, and still if small trees have as thick a bark as large ones it is very evident that we obtain more bark in proportion to the bulk of timber than we should from large trees. So with corn — the bark or coating being the sole object, it behoves us to obtain those ears that are best coated. When I select my seed corn whether taken from the field or the heap, I take the largest, ripest and best filled to appearance — but when I come to shelling, which I always do by hand, it is subject to a more minute selection. When I have shelled about one fourth part from the top end of the ear, which part I always exclude from my seed, I can judge whether it is well coated or not, or whether the kernels are deep and of good length and well set, and if I find the coating thin or shallow, I at once exclude it without any regard to the number of rows or size of the cob.

The Boston Post has discovered an infallible remedy to disperse a mob. It consists merely in carrying round a contribution box.

The New York Gazette relates as a fact within its own knowledge, that a gentleman at a reading room, after employing four hours in wading thro' the contents of his favorite newspaper, laid it down and taking up another paper pored it over for two hours longer, before he discovered that it was a duplicate copy of the first, which a wag had put on the table to try him.

FARMERS' WORK.

A VALUABLE BOOK ON CATTLE.— We have been presented by the publishers, Grigg and Elliot, of Philadelphia, by the hands of Gould, Kendall and Lincoln, Booksellers, Boston, with a very useful and excellent work, entitled "Cattle; their Breeds, Management, and Diseases; with an Index. Published under the superintendence of the Society for the Diffusion of Useful Knowledge."

Of the utility of a good work of this kind there can be but one opinion among intelligent and reflecting persons. "No man will deny the importance of the animal whose milk affords butter, cheese and various combinations for his table—whose hide gives leather for machinery, harness, shoes, &c.—whose hair supports the plaster upon his walls—whose horn and bone are converted into medicines, and articles constantly in his use—whose tallow and fat are consumed in candles and in soap, necessary to his comfort and health—whose heels afford oil, valuable in many of his pursuits—whose stomach even constitutes an agreeable repast—whose tail is converted into a couch for his indulgence or repose—and whose patient offspring, after having enabled him to reap the harvest of his fields, yields the most wholesome and nutritious food for his frame, and finally, by his offal, enriches the soil."

From a cursory perusal of this volume, (we have not yet had time to give that attention which it deserves) we have formed a high opinion of its merits. It gives us the natural history of the ox, the different breeds of British cattle, such as "Polled Cattle, Irish Cattle, Long Horn, Short Horn, Foreign cattle, including the Alderney, Najore cattle, Buffalo and Indian cattle, structure and diseases of different parts of the ox; Breeding, Parturition, the diseases and management of calves," &c. and "a list of the medicines used in the treatment of the diseases of cattle." A few extracts from this very valuable book will give our readers some means of forming a correct estimate of the whole treatise.

In the introduction it is remarked, "If an ox is not individually so valuable as a horse, yet, in the aggregate, cattle constitute a much greater proportion of the wealth of the country; for although Great Britain contains a million and a half of horses, she has to boast of more than eight millions of cattle unrivalled in the world."

The author gives the items of a calculation, by which he computes that the actual value of cattle, sheep and swine in Great Britain is nearly one hundred and twenty millions sterling, and continues, "Although much has been done by agricultural societies to improve the breed and the general treatment of these animals, and much valuable instruction is to be found scattered in many a volume, no one has yet attempted to collect these fragments of "useful knowledge," and to add to them his own experience; and in one very important part of our subject there has been the most unaccountable neglect, for there is scarcely in the English language a work on

the preservation of the health, and the prevention and cure of the diseases of cattle and sheep on which any dependence can be placed. Although a tenth part of the sheep and lambs die annually of disease, (more than four millions perished of the rot alone, in the winter of 1829-30,) and at least a fifteenth part of the neat cattle are destroyed by inflammatory fever and milk fever, red water, hoose, and diarrœa; and the country incurs a loss of nearly ten millions of pounds annually, the agriculturist knows not where to go for information on the nature and the cure of the maladies of which they die, and is either driven to confide in the boasted skill of the pretender or make up his mind that it is in vain to struggle against the evils which he cannot arrest, and lets matters take their course."

"The parent race of the ox is said to have been much larger than any of the present varieties. The Urus in his wild state at least, was an enormous and fierce animal, and ancient legends have thrown around him an air of mystery. In almost every part of the continent, and in every district of England, skulls, evidently belonging to cattle have been found, far exceeding in bulk any now known. There is a fine specimen in the British Museum: the peculiarity of the horns will be observed, resembling smaller ones, dug up in the mines of Cornwall, preserved in the wild cattle of Chillingham Park, and not quite lost in our native breeds of Devon and East Sussex, and those of the Welsh mountains, and the Highlands. The combat of Guy, Earl of Warwick, with the dun cow, the skull of which is yet preserved in the castle of Warwick will sufficiently prove the comparatively large size of some of the wild cattle of that day. We have reason to believe, however, that this referred more to individuals than to the character of the breed generally, for there is no doubt that, within the last century, the size of the cattle has progressively increased in England, and kept pace with the improvement in agriculture."

This work will be found amusing as well as useful, and in our opinion ought to be found in every Farmer's Library.

GRAPES.— We hope that amidst all the new things that are brought before the public, which have in their success a tendency to contribute to our prosperity and advance our comforts, some, which may now be considered as old, will not be entirely forgotten. While many are engaging with such flattering prospects of reward in the culture of the mulberry, the manufacture of silk, and the making of sugar from beets, we hope that grapes for wine and the table will not be entirely overlooked. For a year or two the columns of the Farmer bore evidence of the interest the raising of the grape excited: but for some cause which remains to be explained, little or nothing is now heard on the subject.

EARLY SNOW.— Snow fell to the depth of one or two inches on Wednesday, last week, in Ashburnham, N.H. and its vicinity; and in Ashby, Mass.

BRIEF HINTS FOR AUTUMN WORK.

Select seed wheat from that which grew in the most productive parts of the field—endeavor to obtain the largest seed, and sow none other—this, if practised in yearly succession, will greatly improve the variety.

Sow none but clean seed—for farmers may as well raise wheat as to raise weeds.

Chess may be separated from seed wheat by a good fanning mill. It may also be using brine—if the brine is too strong, so that good plump wheat will not sink in it, dilute it with water until it will; and the chess and light imperfect grains will float, and may be skimmed off. Then empty the wheat into a basket set on a tub or barrel, and the brine will run through into it for further use. Both these methods of cleansing wheat may be combined to advantage.

Picking the largest heads by hand is a slow but very thorough way, and more particularly beneficial where crops are sown expressly for seed.

Smut in wheat crops is perpetuated by the dust of the smut adhering to the seed. It may be prevented by steeping the seed twenty-four hours in ley, or a mixture of fresh lime and water made of half a pound of the former to one gallon of the latter. This is certain prevention. Care should be taken that seed is not rendered foul by putting it in smutty bags, or those where smutty wheat has been kept.

The quantity of wheat sown to the acre should be from five pecks to two bushels, varying with the time of sowing, and with the size of the grains of seed. Early sown wheat should be in less quantity than late: and wheat with small grains should be in less quantity than large, because there are more of them to a bushel.

Furrow drains should be cut by passing the plough three or four times through the same furrow, and they should be made through all low parts of the field. They should be well cleared of loose earth by means of a shovel or hoe, so as to admit the surface water in wet seasons to pass freely off.

CORN should always be *cut up*, that is, cut off near the surface of the ground, and not *topped*, or cut off above the ears. The former is more expeditious, it saves twice as much fodder, and is attended with a better crop of corn, as it is always diminished considerably by topping. This has been proved by repeated experiments, where the crop was measured.

Seed corn should be always selected in autumn—take such for this purpose as have the greatest number of ears to the stalk.

Hogs to be fattened may be turned into apple orchards to pick up falling apples. They will

fatten on them as well as on corn if they have a plenty of them.

Grian fed to hogs should always if possible, be first ground to meal.

Considerable advantage is derived from feeding *cooked* food, (steamed or boiled) to hogs, and it should always be practised when the number is sufficient to warrant the erection of proper apparatus for it.

Cooked food for fattening cattle is of little advantage, and not worth the trouble.

Advantage is generally derived from using *mixed* food for domestic animals.

STRAW may always be of great use to the farmer in many ways, and is well worth preserving. The following method of securing it is given by a correspondent of the *Genesee Farmer* in a former volume: "Previous to thrashing, I go to a hay stack and twist a quantity of bands from six to ten feet long, which are placed at the barn door, and when the straw is raked to the doors two men take a band and stretch it over the bundle of straw, then run each a hand under it, and turn it over endwise, when one of them fastens the band, and the other prepares another band. In that manner two men will bind as fast as the swiftest machine can thrash, and the straw is stacked as securely as wheat, and in a fourth of the time required when not bound." When wanted it may be afterwards removed with far less labor than when stacked without binding.

STRAWBERRIES may be transplanted with advantage, in the early part of autumn.

FRUIT TREES may be removed and transplanted after the first of October. Most farmers who transplant fruit trees, suffer a great loss by not doing the work *well*. The principal care needed is, first, to dig the holes large, say six feet across, and fifteen or eighteen inches deep; secondly, to preserve carefully, the roots as entire and uninjured as possible, and not to suffer them to become dry out of the ground; and thirdly, to fill the hole with finely pulverised, rich earth, (not manure) shaking it in small quantities, and packing it closely but gently about the roots, so as to leave them in their natural position in the soil.—The whole expense of this would not be more than half the price of the tree, and in five years it would be three times the size which it would be if transplanted by the common way of digging small holes and doing the work hastily and imperfectly.—*Gen. Farmer.*

CUTTING UP CORN BY THE ROOTS.

BY J. S. P.

There has been much said this season about the corn crop, and it must be confessed that, owing to the coldness of the season, the corn harvest

promises little to glad the heart of the husbandman. Much complaint has been heard in relation to the seed not germinating, and many impute it to the practice of cutting up corn by the roots; but this I know to be a mistake, having followed that practice for the last 18 years, yet never failed of having good seed in consequence of it.

It is true, that if corn is cut up and crowded into large bunches or stacks when damp, its germinating powers will be destroyed by the heat generated thereby, but if put up in small stacks, free from water, and well secured, the corn when husked, will be found of the first quality. If corn thus saved is to be removed to the barn for husking, care should be taken not to crowd too much together, as it will heat in three or four days sufficiently to make it sprout, thus spoiling it for seed, as well as rendering it less valuable for domestic purposes. When corn thus cut up is husked in the field, the best ears should be selected for seed, being careful to leave sufficient husks on them for braiding them into bunches, to be hung up in a dry and secure place till needed for use.

Of the various modes of harvesting corn, I consider that of cutting it up by the roots as the preferable one, and especially if nipped by a premature frost, since more sound corn will thereby be produced, while the stalks, if well cured, will make most excellent fodder, which of itself is sufficient to pay for cutting and harvesting the corn. I have known many farmers, after their stalks had been cured, husk their corn in the field, and through carelessness suffer the fodder to remain in the field exposed to autumnal rains till spoiled. This to say the least of it, is a needless waste, and an evidence of a slovenly farmer.

Sheffield, Aug. 13, 1836.

Note by J. S. P.—I once had a field of corn struck by a severe frost in the latter end of August, the corn then being completely filled, though the glazing process had but partially commenced round the root of the ears. We supposed the crop spoiled, but at the suggestion of a friend, took scythes just at the opening of day, and before the sun had risen sufficiently high to dispel the frost, most of the corn was prostrate. The consequence was, that the warmth exhaling from the earth dispelled the frost, and no appearance of it was perceptible after the sun had exerted its influence on the stalks as they lay prostrate. In the afternoon the corn was gathered into small stacks, secured and left to ripen. When the period for husking arrived, my corn came forth bright and sound, superior in fact to any I had before raised.—*Gen. Farmer.*

COLD WEATHER AND MULBERRIES.—Fears have by some been entertained, that the frosts

which occurred the last week would be injurious to the mulberry. But in this case as in others, where injury is apprehended, we have reason for thankfulness, that we have been visited by slight frosts, which, although destructive to some vegetables, have greatly benefitted the Chinese Mulberry, by checking its too rapid growth,—in consequence of which, we may hope for a better ripening of the wood, and preparing the tree and its branches for better and more perfect cuttings.—*Silk Cabinet.*

(From the Baltimore Farmer.)

The article on the recent introduction of the *Waterloo Casarean Evergreen Cabbage*, into England, as food for cattle, which will be found in this day's paper, we copy from the September number of the *Horticultural Register and Gardener's Magazine*, an excellent work published in Boston.

We have a few hundred of these plants growing at our little establishment, but as the season has been inauspicious, and they have not had a fair chance for luxuriant growth, we cannot say what may be the result of our experiment. We obtained the seed of Robt. Sinclair, Jr. at \$5 a pound, those in England are, or were held at \$5 for 20 seeds. The next season we shall take time by the forelock, and give the article a more fair and perfect trial. If it should prove by proper test to realize a moiety of what has been said of it, it will certainly produce a new era in agricultural pursuits; but as the venders of the seed of new things, are not always the most scrupulous in pronouncing their eulogies on their virtues, time and actual cultivation are necessary in order that their capacities may be properly demonstrated.

In the more southern portions of our country, if this cabbage should prove as valuable as some of its economists have stated it to be, it will, indeed, be a blessing. But of its properties after we have had time to form a correct practical opinion, we shall speak more fully.

Note by the editor of the Baltimore Farmer.—We procured Northern corn for our planting. The first patch, about two acres, we planted on the 14th May; it came up just before the cold and long continued rain which commenced on the 24th of that month, and did not terminate for several weeks; it has been subsequently subjected to alternations of scorching droughts and rains, and preserved, through all the disadvantages of the season, a healthful appearance. On the 20th of August, eight cattle broke in upon it and consumed and broke off a large number of the ears.—Those which were broken off on examination we found to be perfectly matured.

CORN.—The cold weather of the past summer and spring, it is known, prevented the growth of the Indian Corn, so much as to interfere greatly with the harvest of that important grain. Aware of the effects of short seasons on summer grains, Mr E. J. Pierce, who has a delightful farm near Germantown, procured a quantity of seed corn from the northern part of New Hampshire, where the summers are about the shortest of any part of our country. This corn was planted on the first day of June, and on the first day of September, that is, on Thursday last, it was harvested. We have now before us two ears from Mr P.'s field; they are full of large grains; and we understand that the eight acres planted by Mr P. with this seed will produce nearly 400 bushels. Does it not concern our farmers, generally, to provide themselves with a quantity of such seed, in order that they may be prepared against the effects of such a summer as the past upon their corn-fields?—*U. S. Gaz.*

PRICE OF BREAD STUFFS.—We would not needlessly interrupt the enjoyment of those who look forward to the next winter as a time of general starvation. But lest their dreams should be too suddenly broken, we must call their attention to the facts contained in the last news from Europe respecting the prices of breadstuffs there.—We happen to know of an operation at Liverpool by which fifty thousand bushels of wheat are to be immediately forwarded to this country, and by the prices which are published, there is little doubt that much larger supplies will be soon forthcoming; for the long continuance of high prices, the successful issue of the recent importations, and the fact, well ascertained that our domestic supplies are inadequate to our wants, will give new confidence in future operations. Let us see at what prices we can be supplied.

In Paris the price of bread is about 2 cents, and in London 3 cents per lb. We found a shilling loaf in New York yesterday to weigh 2 lbs. 3 oz., which is near 6 cents per lb. The price of wheat in Paris is 112 cents a bushel, and the price of flour \$5 a barrel. In London flour is \$8 a barrel. In the ports of the Mediterranean and of the Baltic, bread stuffs are much cheaper than in either London or Paris. The price of good wheat at Naples is 2s 10d sterling a bushel, or 67 cents. From any one of these places freight might be obtained at 38 cents per barrel on flour, and 12-1-2 cents per bushel on wheat, or about half the rate charged on transportation of the same articles from Rochester, and one fourth of what is charged from Ohio. Fifty thousand bushels of corn have lately been received here from Ohio by one house, at a freight of 49 cents. The duty on flour is one dollar a barrel, and on

wheat 25 cents a bushel. Wheat, therefore, can be imported from Naples and laid down in New York at 125 to 135 cents a bushel, all charges paid, and from a hundred other places at the same or a less price. Corn and rye are not burdened with a duty, and may be imported to great advantage. The countries of Europe and Asia afford stores of bread stuffs almost inexhaustible, so that the supplies for this country, if they should run to the highest possible quantity, could only affect prices in a very slight degree. Free trade will supply all our wants, and the cost, with a liberal mercantile profit, will not carry prices above 150 cents for wheat, 100 cents for rye and Indian corn, 50 cents for oats per bushel, and \$7 50 for flour per barrel. So let the desponding cheer up for no one who is industrious and frugal need starve in 1836 or 1837.—*Journal of Commerce.*

USEFUL INVENTION.—The London Literary Gazette publishes an account of a pressing machine for Peat, which must be of vast utility to Ireland and part of Scotland where this article is had in great abundance. It states that the machine was invented by Lord Willoughby de Eresby, and it compresses the Peat into a mass which renders it equal to all the purposes for which Coal is used. For a long time attempts have been made to effect this desired object, and Lord Willoughby has, at last, overcome every obstacle, and by a very simple machine can convert the Peat rapidly into a combustible fit for all the uses of Coal, and, in some cases, being devoid of sulphur, superior to that valuable substance. The Peat is cut and pressed into a chamber, upon which a powerful weight is made to descend. The moisture, squeezed out, runs through vertical grooves, and is carried off, whilst every time the incumbent weight descends, knives pass through these grooves and keep them clean for the next operation. At the bottom of the chamber a slide is withdrawn, and the solid peat is precipitated to any convenient receptacle. Being dried for a very short period, it welds iron, and is fit for all that coal furnaces can do. Penknives have been manufactured in this way, and the success of the experiment demonstrated to be complete. Great national results are anticipated from the improvement: the prosperity of Ireland and the amelioration of the north of Scotland are its ready and obvious consequences.

The field of Waterloo is now converted into a large manufactory of sugar from the beet root, several Belgian capitalists having established works on the spot. The soil in that neighborhood is said to be excellent. It has been well manured with human gore, and must produce no other than the *blood beet*.

A FLOATING FARM YARD.—The following sketch of a family floating down the Ohio, on a raft, is at once highly graphic and characteristic of our inland emigration :

“To-day we have passed two large rafts, lashed together, by which simple conveyance several families from New England were transporting themselves and their property to the land of promise in the western woods. Each raft was 80 or 90 feet long, with a small house erected on it, and on each was a stack of hay, round which several horses and cows were feeding, while the paraphernalia of a farm yard, the ploughs, wagons, pigs, children and poultry, carelessly distributed, gave to the whole more the appearance of a permanent residence, than of a caravan of adventures seeking a home. A respectable looking old lady, with spectacles on her nose, was seated on a chair at the door of one of the cabins, employed in knitting; another female was at the washtub, the men were chewing their tobacco with as much complacency as if they had been in the land of steady habits; and the various avocations seemed to go on with the steadiness of clock work. In this manner our western emigrants travel at slight expense. They carry with them their own provisions; their raft floats with the current; and honest Jonathan, surrounded with his scolding, squalling, grunting, lowing and neighing dependants, floats to the point proposed, without leaving his own fireside; and on his arrival there, may go on shore with his household and commence business with as little ceremony as a grave personage, who on his marriage with a rich widow, said that he had “nothing to do but walk in and hang up his hat.”

(From the Genesee Farmer.)

RULES TO BE OBSERVED IN THE MANAGEMENT OF LIVE STOCK—THE MANNER OF NURSING CALVES.

To my Son.—Although it is believed the suggestions contained in my letter are worthy of your attention, consideration and practical regard, yet I have little expectation that they will be responded to either by yourself or your fellow-citizens, in the manner which would be most pleasing to me. It is hard to persuade farmers to alter the course of their proceedings. The American farmers have it in their power to improve their course of husbandry surprisingly, by introducing the best breeds of European stock, I have not the least doubt. Could you obtain for use in your neighborhood a fine bullock of the improved Durham Short Horned breed, although it were but half blooded, it would be a valuable acquisition to the husbandry of that place.

It appears to me the peculiar fitness of your soil for the husbandry of live stock, fur-

nishes a reason wherefore you and your fellow citizens should set your aims high in regard to that object. But I will dismiss this subject. It is possible that I have urged the introduction of foreign breeds beyond what its importance requires.

If you cannot obtain the improved breeds of other countries, or if that should not be thought advisable, then make the best use you can of our own native breeds. There are among the breeds of our own country very many fine animals, and these breeds are susceptible of improvement, perhaps to an indefinite extent. It is believed the principal dairies in the country have hitherto been composed chiefly, if not altogether, of native stock. By taking suitable care at first to make judicious selections of animals, and afterwards to perpetuate and improve their good properties, husbandmen may, in a short time, avail themselves of such home-bred animals as will be highly respectable and profitable. In relation to such cases, the suggestions contained in my last letter, relative to employing only the best animals for propagation, will be highly important. It will be important too to exercise much sound judgment and discretion in selecting calves that are intended to be kept and raised. None but the best, or at least none but such as appear to be well bred, healthy, and of good form, should be selected for that use. All such as are under size, feeble, ill shaped, or in any respect unpromising, should be turned over to the butcher, or otherwise disposed of.

There are, in connexion with the husbandry of live stock, other precautionary prudences which are very necessary, but are not in general regarded according to their importance. One is, not to undertake to keep too much stock. This is a very common error, and it is one from which serious injuries frequently result. It should be considered that the value of live stock depends much less on its numerical amount, than on the quality of the animals which compose it. Animals, in order to be rendered profitable, must be well fed. The only proper and profitable method of keeping any sort of live stock, is to keep every animal, from the time of its birth onwards, and at all seasons of the year, in perfectly good order, and in a thriving condition. Care then should be taken not to keep more stock than can be kept in this manner.

In order to guard against the evils resulting from having more stock than the means of keeping are sufficient to sustain, much good judgment and prudent forecast should be exercised in apportioning the amount of stock to the means provided for keeping animals. In the spring, the husbandman who keeps stock should consider and inquire how many acres of grazing ground he

has at his disposal, and what number of such animals as he intends to keep that will be likely to supply with pasture. In the fall he should make similar inquiries relative to the quantity of hay, and other fodder which he has provided for wintering his stock. How many tons of hay has he in store. If roots, straw, stalks, and other articles of coarse fodder are to be used, then let him inquire how great is the quantity of hay may they be supposed to be equivalent. These should be the first inquiries, and then another should follow: What amount of stock is it likely these provisions will be sufficient to keep through the winter? When these questions are settled, the rule always should be, to keep a smaller number of animals than it is supposed the means of keeping might, under favorable circumstances, be sufficient to sustain. The remark which I am now about to make is, in my view, of more than ordinary importance, and I desire you to regard it accordingly. The remark is that from being under-stocked, injuries rarely result; and if they do, they are generally small and trifling; but to be overstocked is always disastrous. It is far better to be able to sell half a dozen tons of hay in the spring than to starve your stock through the winter, and after all, be obliged to buy even the smallest quantity. It should be considered too, that close grazing in the summer injures pasture, and scanty feeding, either in summer or winter, ruins the stock.

In order to be able to make judicious apportionments, according to the preceding suggestions, it is very necessary to know, as nearly as practicable, how much pasture, and what quantity of hay and other keeping, will be required to keep any given amount of stock through a year. Should it be inquired how much pasture, and what quantity of hay are usually required to keep a horse, or an ox, or a cow, through a year, it is believed very few farmers would be able to answer the question. It would be well for farmers to ascertain themselves, much more than they do, to make accurate observations, in regard to these and many other things. I do not claim to be master of the subject to which I am now calling your attention, nor can I suppose that the idea of infallibility should be attached to the estimates which I am about to submit. From the best lights that have been spread before me, I am led to conclude, that when hay alone is depended on, it usually requires two tons of hay to winter a horse—for one ox about as much—for a cow one and a half ton—for twelve sheep the same as for a cow. It is believed, that for summering either a horse or an ox, at least three acres of good pasture, or an equivalent thereto, will be required. For summering a cow, two and a half acres may suffice—the same for summering twelve sheep.

To the cattle breeder, few things are more important than to know the best manner of nursing and rearing calves. I have taken some pains to avail myself of lights on this subject, in which I have not been altogether unsuccessful, nor yet successful to the extent of my desires and expectations. It is generally conceded, that the ancient practice of letting calves suck is not the best, and so far as I know, the practice is generally discontinued. For several reasons which cannot be explained in this letter, it is supposed to be better to take them off at a very early age, and having learned them to drink milk, feed them with that article till they are old enough to be weaned.—Yet if new milk is the article of food chiefly depended on, the expense of nursing calves in this way is scarcely less than when they are allowed to suck, and it amounts to a considerable item.—For this reason it has long since been considered as a desideratum to devise some less expensive and equally successful way of nursing calves. I am glad to say, there is good reason to believe this has been done.

Several correspondents of the *Genesee Farmer* have published in that journal the details of their successful practice in nursing calves on skimmed milk, and without the use of any other. Whey has been used for the same purpose, and it is said with perfectly good success. When either skimmed milk or whey is to be used as an article of food for calves, the practice is, in the first place, to warm it to about the temperature of new milk. Boiling it, and afterwards letting it cool down to that temperature, it is said to be better. This being done, the next process is to mix it with a small quantity of meal. It may be Indian meal, or it may be fine bran, or meal made of oats or barley. As preventives of disease, and preservatives of good health in the young animals, it is recommended to make frequently small additions to their food of such articles as are known to be useful for such purposes. Particularly, flax seed is recommended for that use. This, it is said, should be boiled or soaked to fit it for use, and then it may be given frequently at the rate of two or three spoonfuls for a calf. It is recommended also, to place before calves lumps of chalk, which it is said they will lick, to the great advantage of their health. Or the chalk may be pulverized, and small quantities given them in their food. It scarcely need be added here, that calves, as well as other animals, require salt, and should have it in suitable portions. In all cases, when calves have attained to any considerable age, they should have hay or grass within their reach, of which they may eat enough to form what is called the cud. It is believed that with proper attention to these requisites, and others which experience and sound judgment will suggest, there will be found

no difficulty in keeping calves well on skimmed milk or whey. Care, however, should be taken in every stage of feeding, not to feed calves to the full extent of their appetites. This is deemed quite important.

It is admitted, that calves kept upon skimmed milk and whey are more liable to disease than when they are allowed to suck, or are fed upon new milk. It is said, the principal and most dangerous disease to which they are exposed, is that of looseness or scouring. For this there is a very simple remedy, which is said to be prompt and effectual, is prescribed. It is only to pour into the food prepared for the sick calf, two or three spoonsfull of rennet, such as is used in cheese-making. If calves are costive, the remedy recommended is, to give them pot liquor, in which pork, mutton, or bacon has been boiled.

New-York State, 1836.

A FATHER.

COLD WEATHER.—On the 5th, 6th and 7th of September were smart frosts, and fires in our dwellings were very comfortable. A gentleman from Europe says the summer has been remarkable for cold weather. Another gentleman from China says that snow fell last winter in Canton two inches deep, to the amazement of the Chinese, having never before been known or seen in Canton—they thought that the spheres were wheeling about.

Intelligence from the westward confirms the reports of an unfavorable season and of short crops. Even in our own fertile valley the crops look sorry. However unfavorable appearances may be respecting the crops, circumstances may yet falsify all these predictions, and give the farmer a plentiful harvest.

A PREVENTIVE OF THE WHEAT FLY.

The following communication we copy from the *Baltimore American*, and commend it to our readers as being worthy of their attention. We published under our head of "Work for September," in our 18th number last year, the same recipe, with the exception that we recommended the seed to be passed through strong ley, or lime water, instead of pickle.—*Balt. Far.*

MESSRS EDITORS — Some time since in a communication published in the *Baltimore papers*, I stated my views on the destruction of wheat by the Hessian fly, and offered a remedy against its ravages. As this season will be remarkable for the devastation committed by this insect, and as the time is approaching for seeding for the next crop, I request a small space in your columns to bring before our farmers again the remedy then proposed, fully believing that if followed much good will be the result from it.

On observation it has been found that the insect

producing the fly progresses with the growth of the wheat; and if the wheat is early sown, and the season is favorable to a luxuriant vegetation, the fly will be very perceptible in the autumn.—The progress of the insect, as is observed in a former communication, is from the seed upwards, on one stem between the root and surface of the earth. The question then arises, how is this insect generated, and what means should be used to destroy it? It is either generated in the grain of wheat similar to the bug which infests the pea, or the insect when in its winged state deposits an egg on the surface of the grain when in the ear and thus when the wheat is sown and begins to vegetate, the egg vivifies and the destructive worm is formed.

For the following reasons I am strongly inclined to the latter opinion. It is known that this insect releases itself by bursting the blade that covers it, when the head is forming, and assumes its winged state, and there is to my mind no doubt that this fly deposits its egg on the wheat when filling and coming to perfection. If I had any doubts on this subject they would be removed by the fact that with the aid of the microscope the egg is discernible in the form of a glutinous matter. If this opinion be correct, the remedy is simple, and worthy at least of a fair trial. Providence inflicts no evil upon mankind without also providing some remedy, and unless this is intended as a special curse upon the husbandman, there is and must be a remedy which he must find out by actual experiment.

In the course of twenty years experience in this matter, I have known but one experiment made to destroy this fly, and that proved successful. An intelligent farmer in Loudon county, Va. having understood that some of his neighbors with the aid of a microscope, had discovered a glutinous matter on the surface of wheat which they believed to be the egg of the fly, determined to try an experiment for its destruction and succeeded in that crop; but unfortunately it was not followed up, and whether it will be an effectual remedy in all seasons, remains yet to be tested. This plan which he followed, and which it is the object of this communication to recommend to the notice of the farmers, is simply to pass the seed wheat through a strong brine or pickle, washing it well, and then rolling it in slackened lime, (similar to rolling it in Plaster of Paris) not preparing at one time more than a day's sowing. Washing the wheat in brine, and rolling it in the lime are done primarily for the purpose of destroying the egg, but it answers another good purpose — that of preventing the growth of smut. The lime will also be found to act as a powerful stimulant to the growth of the wheat, and superior to that of plaster.

This remedy being so simple, and as I firmly believe so efficacious, I hope there will be many farmers disposed to make trial of it, and thereby fully test its correctness. If I should be instrumental in arresting the progress of this direful enemy of the farmer, I shall be amply compensated in the recollection that I have discharged my duty to the community.

AN AGRICULTURIST OF MARYLAND.

(From the Genesee Farmer.)

RAISING AND FLOURING WHEAT.

MR HOLMES:—I find your correspondents are reviewing the wheat raising topic, and I am pleased to find them awake to the subject.

I should be glad if I could make any observations which would be beneficial to the public as it respects the culture of this grain, possibly I can. In regard to grinding or flouring I have no doubt my remarks, though perhaps not new to all, will be useful to every one, who will adopt the practice which I shall recommend. First as to the raising. In regard to clover or sward land for a crop, I find that it ought to have some manure turned in as well as a small top dressing to ensure a good crop, such as ashes or plaster. The slow growth of wheat on such land owing to the gradual rotting of the sod, prevents much danger from blight or blast. The same may be said of the crop after peas. Pasture land will produce an excellent crop, if turned over with a top dressing of ashes, say five or six bushels to the acre, even if no manure is turned in, and perhaps may be the most sure method of raising wheat in this part of the country. I find by my own experience, strengthened by the observations of Dr. Bates, that on all sandy soils with gravel as a subsoil, or clay if it is five deep; steeped or leached ashes and clay as a manure, will ensure the crop of wheat.

Second, as to the flouring or grinding of wheat. When we have raised the wheat, we ought to be able to make the best of the article it is capable of, and I hope your readers will pardon me if I relate a few facts and give some reasons why this business should be better attended to, if we wish to compete with other wheat growing countries. It seems to be necessary to keep the mill-stones apart by the hardest corn, in order to get either fine flour or the greatest quantity. I once carried to the mill in Winthrop, one and a half bushels, and paid the miller, Mr Stanley, for grinding it, instead of giving him the toll as usual.

After the wheat had passed through the cleanser, I scattered in three quarts of corn as evenly as I could, and weighed the flour it made. It was allowed by all to be finer and lighter than that made from the same wheat without the corn.

It yielded 40 1-3 lbs., to the bushel.—Four

bushels would have made 196 lbs. of flour and a fraction over, which would of course make a fraction over a barrel.

Mr Sanborn of Wales stood by. He had brought some very good wheat to mill, and he put in two quarts of corn to the bushel which he raised year before last. He afterwards told me that he obtained 54 lbs. to the bushel.

Try it brother Farmers, and my word for it, you will never grind, or rather *flat* out wheat, as you have done, and give the residue to the hogs, calling it wheat bran, when there is at least ten pounds of flour in it. I am told that at the South, it is always done, and may we not expect that one fourth at least of corn is put in, and then is really better than when none at all is put in.

I had in my bushel and a half, nine pounds and three fourths of coarse or second sort, so that in fact I had more than fifty pounds of eatable flour. My wheat was very dry, if it had for a short time been placed over some steam, so as to moisten it a little, the hull would have been less cut by the mill, and the flour would have been better.

This I am told is sometimes practised at some flour mills. Will any farmer longer neglect to raise wheat and grind it in the best manner, and pay away all his money for flour and be in consequence as poor as a church mouse? Or will you take care of yourselves? It remains with you to say. Without economy no one can expect to have much, but with it, and a little industry, everything.

If you neglect to raise your bread, or if you do raise a little, and give one fifth to the hogs under the name of wheat bran, at the same time extol Southern flour and prefer it to your own, merely because it is ground better and finer, you must expect yourselves and the State to lag behind the others in wealth and improvements. Our mills I believe are good, and I have ever found the millers accommodating. Look to yourselves, brother Farmers.

ELIJAH WOOD.

SUGAR FROM INDIAN CORN.—M. Pallis lately presented to the Academie des Sciences of Paris, a sample of this substance, extracted from the stem of the plant, which has been found to contain nearly six per cent. of syrup boiled to forty degrees, a part of which will not crystalize before fructification; but it condenses and acquires more consistency from that period to the state of complete maturity. The most favorable time to obtain the greatest quantity of sugar is immediately after the maturity and gathering of the fruit. The matter left after the extraction of sugar is capital to feed cattle or to make packing paper.

MORUS MULTICAULIS.—We yesterday received from the nursery of A. Brownell, Esq. of Westport, a Mulberry leaf of this species, the stalk of which was engrafted into the common white Mulberry last spring. Within the six months past it has grown upwards of six feet in height, and the leaf before us is twelve inches in length and eleven inches in width. We understand that Mr Brownell has about fifty thousand of the White Mulberry tree now in his nursery.—*New Bedford Gaz.*

HARD TIMES.—High rents and prices for everything we eat and wear, are themes of universal complaint. Bacon, beef, veal, lamb, poultry, eggs, butter, and all the little et ceteras of the table, are double former prices.—Under such circumstances economy should be the word with all those who have to gain their livelihood. Cut down every useless expense and useless indulgence; get up an hour sooner in the morning, and go to bed an hour later at night; work in a little additional elbow grease during the day, and if blessed with health, the poorest among us may soon bid defiance not only to high prices, scarcity of money, and prospective starvation, but in due time, to debts, duns, and difficulties in the bargain.—Live light and live cheap; it is easily done.—Rice and molasses is an admirable dish for children; salt herrings for breakfast or tea, three times a week, are enviable luxuries for grown folks, middling bacon and fried apples are both healthy and palatable, veal shin soup well made is excellent; and a fish stew, brewed according to rule is superlative.

Then for side dishes, what can match well boiled or fried potatoes, pickled beets and onions “smothered,” not in “cream,” but in hot water and drawn butter? A dozen or other little knick-knacks might be named, but these will suffice for the present. So much for cheap summer living; now for cheap wearing.—Brush up and repair the old shoes and stockings; pull the faded waistcoat and pantaloons out of the closet and try them on again; they don't look so well as new to be sure, but they fit loosely and pleasantly, besides they are paid for. Get last year's winter coat from the garret, have the elbows patched, the missing button replaced, the dust brushed off, the grease spots taken out, and slip it on; then have the old hat brushed and ironed up, and look in the glass at yourself, reader, if you have heeded and followed our counsel and see how you like your personal appearance! The patches on the elbows are objectionable; true, they are not very slightly, but which is the best, a *patch* on the elbow of your coat by a tailor, or a *tap* on your shoulder by a sheriff's officer?—*Petersburg Constellation.*

(From an English Paper.)

ON HORSE FOOD.—People generally imagine, when they hear the quality of oats mentioned, that their only desirable properties consists in the brightness of color, purity of scent, and freedom from all appearances of having been damp or heated; but they rarely advert to the fact, that, when these objects have been attained, their main value yet rests in their weight; and a material difference may be found in samples, which, to the hand and eye of one who is not a good judge of the article, may appear to be of nearly the same sort, though the bushel of the one kind may be several pounds lighter than the other. The following table will show the quantity of meal which, in ordinary seasons, is usually extracted from certain weights of grain, and on which the nourishment to be obtained from it depends:

	Weight per bushel avoirdupois.			
	lb.	oz.	lb.	oz.
42 lbs. produce in meal	25	2—do	in husk	16 14
40 “ “ “	23	6 “	“	16 10
38 “ “ “	21	12 “	“	16 4
36 “ “ “	20	3 “	“	15 13
34 “ “ “	18	11 “	“	15 5
32 “ “ “	17	5 “	“	14 11

Thus it will be seen that the beast which is fed upon oats of the latter description, (which abound in our markets,) is the loser of about one-third of the nutriment which he would obtain if supplied with those of good quality.

[If oats be taken at the price of sixtyfour cents the bushel of thirtytwo pounds, giving seventeen pounds and five ounces of meal, what price should be given per bushel for oats weighing fortytwo pounds and giving twentyfive pounds two ounces of meal? The answer will almost astonish one—say nearly ninety-six cents.]

PRESERVING POTATOES.—Chance has led to the discovery of a method of preserving potatoes, which is both simple and attended with little or no expense. A house keeper had placed in his cellar a quantity of charcoal. Having removed it in the autumn, without removing the dust that covered the ground, he caused a large quantity of potatoes to be laid on it. Towards the spring these roots were preserved, had thrown out no shoots, and were found as fresh and well flavored as new.

The Northampton Courier celebrates a *radish* twenty-three inches in length, and ten inches in circumference, and weighing five pounds.

Subscriptions have been commenced in New York for the erection of a chain bridge over the Niagara river, near the Falls.

Extract of a Letter from Gen. Tallmadge to the American Institute, dated

“NAPLES, 5th March, 1836.

“Since I arrived in this land of fame and fable, I have not been unmindful of the culture of Silk, so justly a subject of great and growing interest of our country. I have visited several manufactories of silk. It is not the season for seeing the silk worm, but most of its progress in other respects I have been able to see. I have made many inquiries in hopes of obtaining useful information. Finizio is an extensive manufacturer of sewing silk; he makes about 3000 lbs. a week, which is mostly sent to the New York market. He is an intelligent man, and I found him willing to answer my inquiries; as also were several other establishments, and which mostly confirmed his statement. The sewing silks of Naples are mostly made from the silk-grown in *Calabria*, where the worm is fed principally upon the *black mulberry*, and which makes the strongest and best sewing silk. Finizio stated that the worm fed on the black mulberry, made the strongest thread; that on the *white mulberry*, finer and better for fabrics; that on the *Chinese mulberry*, still finer and more delicate. When asked if the cocoon from the Chinese mulberry required more skilful and delicate work to wind and work it, he said it did, and immediately produced two skeins, one of which, he said, was from the black mulberry, (from a bush, perhaps, eight or ten feet in circumference,) the other from a bush about four feet. The lesser bush, he said, was less liable to break the thread in winding from the cocoon, and was used in finer silks for fabrics. The black mulberry produced a stronger thread, and would bear the largest reel, and was principally used in that business. The silk here is mostly made in the country by families in detail, and much of it reeled there, and in this condition it is brought to market. For sewing silk it is doubled as often as required, and twisted as much. This process is wholly in a *dark room*. The silk is worked wet, and for this purpose, to preserve a uniformity, the atmosphere is kept damp, the day light excluded, and the work carried on with small hand lamps. The machine was turned by men harnessed like mules. I have since been out about twenty miles to the silk factory of the king, which is worked by water power, and by which the cocoons are also reeled. I stated to Finizio, as well as at the king's factory, that the Italian silk was sold in the American markets by its weight, while the American sewing silk was sold by the skein; and that one pound of the Italian would have perhaps two hundred and fifty skeins, while one of the American silk would have about three hundred and fifty skeins. The cause of this difference of weight,

or why the American sewing silk has a tendency to curl or knot, they could not explain without a sample; but said the weight of sewing silk could be diminished or very considerably augmented in the *dyeing*, and that good dyeing required the silk to be well *boiled in soap*, after which it was put into an acid, and was there prepared for the process of the dye, according to the color, as described. The gloss, or dressing, seems to be produced by beating or twisting on a post, which, with the manual labor put upon its finish, it is supposed, prevents its tendency to knot.

I asked if the color of the cocoon, yellow or white, gave any difference of value, or indicated a sickly worm, and the answer was, that the color was casual, and the value the same; that a selection of white or yellow cocoons from which to get eggs, would probably produce a like color; and Mr Finizio said he had some customers who had so selected and brought him *cocoons* entirely *white*; and that for white ribbons or fabrics, they commanded a greater price of from three to five per cent., though otherwise of equal value.

I have made many other inquiries and observations on this subject, but which in the limits of a letter cannot be detailed. The eggs are here in market during most of the year, and by being kept in a *grotto*, or cold, damp place, the worm can be produced as required. The *sirocco*, or hot south wind, is here the greatest enemy of the silk worm, and sometimes suddenly destroys so many of the worms as to require the reproduction of another class, from eggs in reserve. They should be sheltered from this wind, and ventilation should be given them above or by back windows. I think we have sometimes a like south, or south-west wind, which should be guarded against, and which our gardeners call a *red wind*, from a rust produced by it on peach, and apricot trees, which curls up and burns the young leaves, and often kills the trees, and is said to effect the mulberry trees in like manner.

We do not entirely despair of having occasionally a “Johnny Cake,” after the old corn is all consumed. A gentleman from Westmoreland informs us that he thinks he can safely calculate on *fortyfive* bushels to the acre from his corn fields, but considers it an exception of that of most of his neighboring farmers. While his fields remain uninjured from the frosts, others near are nearly destroyed. His lies upon a very elevated part of the town.—*Silk Grower*.

Three thousand one hundred and eleven squirrels of all kinds, grey, black, red and striped, were brought in by the two sides at a great squirrel hunt in Swanton, (Vt.) a few days since.

ESSEX AGRICULTURAL SOCIETY.

The Salem Gazette gives the following sketch of the remarks of Gov. Everett at the Essex Cattle Show.

After the report of the Committee of Arrangements had been read, Governor Everett rose and made his acknowledgments to the Committee for the manner in which they had alluded to the circumstance of his being present. He expressed his gratification at the exhibition of the day; and his confidence that the bounty of the State was beneficially applied by the Essex Agricultural Society. He stated that the wish had been expressed that he should address the audience. He felt that in complying with the request, he stepped beyond the line of usage on such occasions, but he trusted the responsibility of his doing so would be considered as resting with the Committee, by whom the wish had been expressed.

The Governor added, that he felt additional embarrassment in following the orator, who in his very able and interesting discourse, had anticipated many of the general remarks appropriate to such an occasion. His only effort could now be, to subjoin a few observations, so simple as to present themselves without research, and he hoped important enough to bear a repetition, should it happen, as was very probable, that they had been already made by the orator of the day.

After some remarks on the nature and objects of cattle-shows, and their beneficial influence on the state of the husbandry of this part of the country, Governor Everett proceeded substantially as follows:

The benefit which has accrued to our farmers from these exhibitions, cannot be estimated in dollars and cents, or measured by the figures employed to state an increase of agricultural products. A few more tons of hay from your meadows; a few more bushels of corn or potatoes from your tilled lands; a better stock of animals for the dairy, the fold, or the pen, would add something, it is true, to the public and private wealth of the community; but if nothing farther came of it, it would be a matter, in which neither the patriot nor the Christian could take a deep interest.

But when we consider, that the class of husbandmen is numerically the largest in the community; and that on their condition it has been found, in the experience of the whole world, that the social, political, and moral characters of countries mainly depends, it follows as self-evident, that whatever improves the situation of the farmer, feeds the life-springs of the national character. In proportion as our husbandmen prosper, they not only enjoy themselves a larger portion of the blessings of life; but society is kept in a healthy state, and they are enabled to make ampler provisions for the education and establishment of their

children, and thus leave behind them a posterity competent not only to preserve and assert, but to augment their heritage.

It will accordingly be found, that the great differences in the political condition of different countries coincide directly with the different tenures on which the land is held and cultivated. It is not that in one country the Government is administered by an elective President; in another by a limited monarch; in another by an absolute despot. These things are not unimportant; because forms have a tendency to draw the substance after them. But a far more important question, in deciding the political condition of different countries is, *how is the land held?* The orator has told us what is the case in many parts of Europe; but there are countries, where the case is still worse. There are countries, where the land,—the whole of it,—is claimed to be the property of an absolute despot, rather a chief of brigands than a sovereign,—who once or twice a year sends out his armed hordes to scour the territory; to sweep together, without the shadow of law or pretence of right, whatever they can lay their hands on; leaving the wretched peasant little else than what he actually grasps with his teeth. Such is the system introduced into some parts of Hindostan by their Mahometan conquerors, and it has had the effect of breaking down the civilization of countries once refined, learned, wealthy, and prosperous, into a condition very little better than that of the North American savage. Contrast this with the system on which our lands are held and occupied, in pursuance of which, as a general rule, it is divided into small farms, the property of those who till them, who have every inducement and facility to better their condition, and who feel themselves on an equality with their fellow citizens, in every other pursuit. It is plain, that over such a population, no government could exist, but one like that beneath which we live, in which the people are the direct source of power. Where this is the case, it is equally plain, that whatever improves and raises the condition of husbandmen, tends directly to sustain and fortify the social fabric.

A very celebrated ancient poet exclaimed, "Oh, too happy farmers, did you but know your blessings." If this could be said of the farmers of Italy, at the close of the civil wars,—subjects of an absolute prince, and a part of them only the owners of the land they tilled, it may well be repeated of the husbandmen of New England, the proprietors of a soil which furnishes a competence of all the good things of life; and the possessor of an amount of blessings never surpassed, if ever equalled. Not among the least of these privileges, is the rich birthright of patriotic recollections which has come down to us from our fathers; and of

which no portion of our country has more to boast, than the ancient county of Essex. It is no mere compliment, sir;—the county of Essex is a distinguished part of the State. It would be easy, within the limits of this single county, to find, in the history of other times, bright examples of all the traits of character and conduct, which promote the prosperity and honor of nations in peace and in war. From the early contests with the Indians and French,—from the time when the “Flower of Essex” fell at “Bloody Brook,”—down to the close of the revolution, the fathers and forefathers of those I have the honor to address, contributed a full share of the counsel and treasure, the valor and blood by which the cause of the country was directed, sustained, and carried through triumphant.

Need I go beyond the limits of the town of Danvers? Is it not enough to recall the time, not beyond the memory I am sure of some whom I see before me, when a regiment of royal troops was here encamped, a sort of prætorian band to guard the residence of the Royal Governor? Need I do more than remind you of the morning of the 19th of April, 1775, when your sires, at the sound of the bell of yonder church, hastened together, a portion of them under the command of your venerable fellow-citizen near me, (General Gideon Foster,) and rushed rather than marched to the field of danger,—sixteen miles in four hours,—flying into the jaws of death, as rapidly as fear commonly lends men wings to fly from it; and contributing,—this single town,—this one little town,—oh, prodigality of noble blood,—one sixth of the entire loss of that eventful day. Need I, my friends, for the most touching recollections, go beyond the walls of yonder ancient church, consecrated, as it was, by the strange spectacle, (at the memory of which your tears were called forth afresh, on last year’s return of the great anniversary,)—the sight of four of your brave sons wrapped in their bloody shrouds,—the honorable wounds which they had received in their country’s cause still freshly flowing? Could I before this audience on such a theme, be wholly mute, would not the grey hairs of the veteran leader of that heroic band, who is now before me, (General Foster) rebuke my silence, and put a tongue in every echo of this building, which would cry out and shame me!

Yes, fellow citizens, if anything could make your native land your homes, your firesides more dear to you, it must be these recollections of the precious blood by which they were redeemed. If anything was wanting to inspire you with a passionate attachment to the blessings you enjoy, it would be the thought of the inestimable price, at which they were purchased.

Nor let us forget, if we have a patriotic ances-

try to be proud of,—and if we have privileges to enjoy,—we have also incumbent duties to perform. The great principles of republican liberty are exposed to danger in peace as well as in war. Prosperity not less than trial may sap the foundation of the social fabric; and there is at all times less danger from a foreign foe, than from party passion, individual selfishness, and general apathy.

It will not, of course, be expected of me to enlarge upon the duties which devolve upon our husbandmen with a view to guard against these dangers and perpetuate our institutions in their purity. I can but glance at the topic. But I may sun’s rays and the dews of heaven,—shoot upward and expand,—array itself in glories beyond the royal vesture of Solomon,—extract from the same common earth and air a thousand varieties of the green of the leaf,—the rainbow hues of the petals, the juicy or the solid substances of the fruit which is to form the food of man and his dependent animals—I say the intelligent husbandman who beholds this, seems to step behind the veil, which conceals the mysteries of creative power, and sit down, (if I dare so to speak) in the laboratory of Omnipotence.

Connected with the cultivation of the religious principle, and the natural fruit of it, we look to our husbandmen for a high moral sense. The say, that the first and most important duty of the husbandman is to endeavor to preserve, and if it may be to strengthen, the broad foundation laid by our fathers, in a deep religious principle. Surely there is no class of the community, whose daily pursuits ought to furnish greater nourishment to the sense of religious things. The reflecting mind it is true, beholds traces of a higher wisdom and goodness in every step of every walk of life; but the husbandman, who drops a seemingly lifeless seed into the cold damp earth,—there in great part to decay,—who sees the vital germ in a few days pierce the clod,—rise into the air,—drink the worst feature in the degradation of many foreign countries, is the moral condition of those who till the soil, showing itself in the extreme of intemperance, and the kindred vices. No man can fully understand this, who has not witnessed it. In the general moral character of our population, we are warranted in saying that it might serve as an example to the world. I do not think that out of New England, (and I repeat only a remark, which, I have heard several times from persons coming from other parts of the country,) you could assemble a concourse giving so much proof of sobriety, thrift, and industry, as is brought together in this town to-day, and might be assembled, on a similar occasion, in any town in Massachusetts. We look to our husbandmen, by precept and example, to sustain, and if possible elevate, this

sound state of morals in the community. — Lastly, that I may say a single word on a subject, on which the orator has preceded me — it is a great and just boast of the pilgrims and their descendants, that they made early and ample provision for education. Farmers of Essex, hold fast to that boast. I had rather for the appearance, if I must choose between them, see the country dotted all over, at its cross-roads, with its plain little village school-houses, than have the high places of a few large towns crowned with the most splendid fabrics of Grecian and Roman art. I had rather for the strength and defence of the country, — if I must choose between them, — see the roads that lead to those school-houses thronged with the children of both sexes, saluting the traveller as he passes, in the good old New England way, with their little courtesy or nod, than gaze upon regiments of mercenary troops parading upon the ramparts of impregnable fortresses. Aye, for the honor of the thing, I had rather have it said of me, that I was, by choice, the humblest citizen of the state, making the best provision for the education of all its children, and that I had the heart to appreciate this blessing, than sit on a throne of ivory and gold, the monarch of an empire on which the sun never sets. Husbandmen, sow the seed of instruction in your sons' and daughters' minds. It will grow up and bear fruit, through the driving storm scatter the blossoms of spring, or untimely frost overtake the hopes of autumn. Plant the germ of truth in the infant understandings of your children; save, stint, spare, scrape, — do anything but steal, — in order to nourish that growth; — and it is little, — nothing to say, that it will flourish when your grave-stones, crumbled into dust, shall mingle with the dust they covered; — it will flourish, when that over-arching heaven shall pass away like a scroll, and the eternal sun, which lightens it, shall set in blood!

GLEANINGS IN HUSBANDRY, USEFUL ARTS. &c.

Fattening Swine. — "A farmer of our acquaintance, who is celebrated for the weight of his hogs and the excellence of his pork, is in the habit of mixing oats with his corn before grinding in the preparation of about one fourth, and thinks that if he had not the oats of his own, he should be a gainer in exchanging corn, bushel for bushel, for oats, rather than not have them to mix with his swine feed. He thinks they eat the mixture better than clear corn meal, are less liable to a surfeit, and of course will fatten much faster with the oats than without them. * * *

"The fattening of hogs on apples may be considered as one of the successful innovations of the age, it being certain that this fruit possesses a value for that purpose which but a few years since

was wholly unknown. The success of this experiment has given a new value to orchards, and will probably check their destruction, which in some sections of the country had already commenced to a considerable extent. The various reports from gentlemen of intelligence of the practical results of apple feeding are most gratifying, and we have no doubt the system will be fully approved wherever fairly tested. Where convenient let the hogs lie in the orchard from the time the fruit begins to fall, till it is time to gather apples for winter or cider, and they will in most cases be found respectable pork. When it is necessary to put them in the pen, boiled apples, mixed with a small quantity of corn, oats, peas or buck wheat meal, will fill them up rapidly, make them lard well, and fill the farmers' barrels with sweet pork, of the first quality. If any, however, are doubtful, they can easily finish off their apple fed pork, as is generally done with potato fed, with corn or peas, and with similar results." — "G." in *Genesee Farmer*.

Seed Wheat. — To obtain good seed wheat, take the bundles and shake or slightly beat them over a box, and the earliest and plumpest kernels will fall out, which will be the best for seed. This method will tend to improve wheat, and is attended with very little trouble. — *Lynn Star*.

Hops. — By accounts received from the Hop Districts in England, it appears the appearance of the crop had improved beyond expectation. It is believed that a larger crop will be gathered than has been known for several years. The quality good.

Silk Cocoons have been left at our office from the House of Industry, at South Boston. They are from eggs of this year, a second crop. The worms came out August 26th, were kept in an even temperature of about 70 deg., and spun in thirty days.

Skinless Oats. — We are indebted to Mr Holmes, of Dixmont, Me. for a small quantity of Skinless Oats for distribution. We shall take pleasure in dealing them out to all applicants as long as they last.

ANOTHER STRIKE — The bakers in Boston have resolved no longer to bake beans for the Sunday dinners of the neighbors at three cents the pot — they have determined on having four-pence-half penny.

A man has been sentenced at the Worcester Court of Common Pleas, to nine months in the House of Correction for cruelly beating a yoke of oxen.

The President of the United States arrived at Washington on the 1st inst., from Tennessee. It is rumored that he intends to rescind the Treasury order, requiring specie payments for public lands.

FESSENDEN'S

SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture and Rural Economy.

VOL. II.

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BOSTON, NOVEMBER, 1836.

(For the Silk Manual.)

MR EDITOR — Novices in the Silk business are asking for the best mode of preserving the young plants of the *Morus Multicaulis*, and White Mulberry from the effects of Winter. By publishing some plain directions for their preservation in the next number of your useful "Manual," you will confer a new favor on

MANY.

Sept. 19, 1836.

BY THE EDITOR.—The foregoing should have been inserted in our Manual for October, but was mislaid, and did not come to hand till too late for our last. We will now give the best information we can, at present, command.

Dr Stebbins, of Northampton, in a communication for the *Northampton Courier*, republished in *Fessenden's Silk Manual*, vol. I, p. 24, observes: "Although the climate of New England may be congenial to the growth and culture of the Chinese mulberry, and trees have withstood the severity of several winters, even in open and exposed situations, because these trees have not been disturbed by frequent hoeing about the roots, in the extensive cultivation of the Chinese mulberry, it may be prudent to accelerate the growth in the early part of the season, by frequent hoeing and stirring of the earth about the plant, and by, or before the middle of the month of August, it will be necessary wholly to omit stirring the earth

about the roots to impede the growth of the tree. To use the leaves for feeding worms, or for drying in a shade with a sprinkling of salt, and packed away for early use the next spring. By this method the tree may acquire a more firm texture or wood. On light soil the plant will soonest cease to grow; therefore, our poor light land will answer for the propagation of the Chinese mulberry, and on such land be more likely to acquire firm wood, and the capability of withstanding the severity of northern winters. But as the plant may be multiplied by cuttings or layers, to a great extent, should any person fear the severity of winter, the plants may be easily secured by laying down the plant and covering with earth, or by drawing up the earth a few inches above where the sprouts start from the foot stalk — or by taking up the roots and setting them out in a cellar, or out-house. These several methods have been adopted with success, and have preserved the roots in a healthy condition; but the tender plants which were left in the fields without any protection have suffered severely, especially in consequence of the early frost, which proved the death, not only of the Chinese mulberry stock, but some of our most hardy trees.

Gideon B. Smith, of Baltimore, in a communication for the *Baltimore Farmer*, observes that "none but the young trees (of the *Morus Multicaulis*) are ever injured by winter, and all we have to do is to give them such a start as to enable them to repair their wood previous to the approach of very cold weather. I raise all my trees from cuttings, in a hot bed. About the first of March, I make an ordinary hot bed, like those used for cabbage plants: then I take the young wood of the last year's growth, and cut it into pieces about two inches long, merely leaving a single bud on each; these pieces I stick in the hot bed, three inches apart, in a slanting direction, the upper end inclining to the north, and burying it so that the bud is scarcely seen at the

surface of the earth; sprinkle the bed with a watering pot, and put on the glasses; keep the bed properly moistened by watering every day, and throw matting over the glass at night, and in the middle of the day, to protect both from frost and the hot sun. By the middle of May, the plants will be four, six or eight inches high, and may then be transplanted to the place they are to grow, like cabbage plants, watering them once a day for eight or ten days, if the weather is dry; they will be found to be well rooted, and will grow from four to six feet the same season, and will ripen their wood so that the ensuing winter will not injure them. After the first year, I have never seen any of them lost by the winter, except in some extra cases, and in these cases the white mulberry has suffered, and even the native mulberry, fully as much as the multicaulis. Last winter, a white mulberry tree seven or eight years old in the western part of the city of Baltimore, was killed to the ground; while my *Morus multicaulis*, not a quarter of a mile from it, and north of it too, and in a higher situation, was not injured."

SILK.

We have had occasion more than once to speak of the experiments in silk culture in Muskingum county during the past season, and have exhibited specimens of beautiful silk made by a fellow townsman during the past summer. The following communication states a further experiment, that of rearing two sets of worms during the same season, an experiment in which Mr Westbrook was entirely successful. We have visited his nurseries of young mulberry trees, and must pronounce them the handsomest we have seen. We also procured last spring, a few plants of the *Morus multicaulis*, which have grown finely, and should they not kill down badly this winter, we shall have several hundred cuttings next spring. The great stumbling block in silk culture, the reeling process, has proved to be a small matter when understood.

Mr Westbrook has left a specimen of his own manufacture of sewing silk with us, which can be seen by calling at this office.

MESSRS PARKE & BENNETT:

Last spring I obtained an ounce and a half of the White Mulberry seed, which I sowed on the 11th and 12th of April, on a bed 40 feet long, and 13 broad, in rows twelve inches apart, watering the bed twice or three times a week in dry weather, once a week at least with soap suds. A part of my seed, say one half, came up the last of that month and the first of May, when the dry weather came on. The balance of my seed did not come up until after the long spell of rain about the first of June. By keeping the bed clean, and occasionally stirring the ground between the rows, the

plants grew rapidly, and those which came up before the drought, perhaps the number of three or four thousand, have attained to the average height of three or four feet, and some to the height of four feet ten inches; but were I to sow again, I should occupy at least twice as much ground.

I also obtained of Mr C. G. Wilson, ten trees of the Chinese Mulberry of last year's growth, about a foot in height, which were brought from Boston, and did not arrive here until about the first of June, at which time they were transplanted, but had no appearance of vegetating for about ten days, when the buds next the ground began to develop themselves, the top of the stock down to those buds dried up. By occasional watering in dry weather, and stirring the ground about the roots, those buds, together with several sprouts or suckers, which sprang up from the roots, some at the distance of two or three inches from the main stalk, grew rapidly and have attained to the average height of five feet ten inches, and one measuring six feet six inches, clothed with the most beautiful foliage I ever saw, of a deep green, and of a beautiful glossy silky appearance, some of the leaves measuring eleven and one fourth inches in length and ten in breadth. I intend, if I can preserve these ten trees entire the coming winter, to increase my number to one thousand from cuttings.

I also obtained a few silkworm eggs last spring, which came out on the 12th and 13th of May, and fed them on the native Mulberry as a school of experiment, they grew well and wound their cocoons in thirty-five days from the date of their hatching. The moth came out in a few days and laid their eggs, and as it has been shown that two crops in a year have been raised in the United States, and to use a trite adage, "what has been done may be done again," in order to test the experiment satisfactorily, I allowed a second crop to hatch: they came out on 13th of July, and were fed from the limbs which I cut from my seedling trees, until the fourth age, and the balance of the season on the native mulberry. The worms grew as rapidly, and appeared equally as healthy and vigorous as the former crop, and came to maturity five days sooner, and commenced spinning their cocoons in thirty days from the date of their hatching, and the cocoons were about the same weight.

The foregoing exposition will prove beyond the shadow of a doubt, the practicability of rearing two crops of worms in a season in our climate, and also the adaptation of our climate and soil to the successful culture of the mulberry, for in turning over the pages of horticulture, there is no where recorded, so luxuriant a growth as in the above instance. — *Zanesville (Ohio) Gazette.*

NATIVE SILK MANUFACTURE.—Two skeins of sewing silk have been exhibited to us by Mr *Calvin Messenger* of this town, which are the product of worms fed upon the mulberry planted by him two years since. The silk was manufactured by Mrs Messenger on a common spinning wheel, and wound from the cocoons by the aid of a common reel. Mrs M. has had no other information in relation to the mode of manufacturing silk, except what she derived from books, and has been enabled to gather casually from others — no experimental knowledge. One of the skeins we examined was wound from 100 cocoons, the other from 200. The former, although of even and uniform texture, is not sufficient sized thread for common use: the latter, in our opinion, is equal in size, texture, and beauty of manufacture, to any we have ever examined. We hail these first fruits of Mr M's success as an omen of the triumph of the silk business in New England.—*New Hampshire Argus*.

WAR WITH THE LOCUSTS.—Ibrahim Pacha Governor of Syria — who, if we mistake not, has formerly distinguished himself in arms against men — has latterly added to his brow a new wreath of glory by his achievements against the locusts.

In the beginning of the summer, there was such a prodigious flight of locusts as to threaten all the crops with certain destruction. Hereupon the brave Pacha ordered out his troops, putting himself at their head, scoured the country. He also put in requisition all the population of Aleppo, and some other districts; and dividing them into sections, compelled them to march against the locusts.

The consequence was, that after an uninterrupted war of forty days, the enemy were completely vanquished. The number of slain was immense — or, perhaps we should rather say the quantity of the slain — for they were measured — not numbered. According to a statement drawn up by Ibrahim, there were 482,160 ardebs. Each ardeb is equal to eight bushels. The whole amount therefore, was no less than 3,517,280 bushels of slain locusts; which would make a pile equal to all the men slain by Julius Cæsar in all his wars.

WARM CLOTHING VS. CROUP.—Eberle in his excellent work on the diseases of children, says, the mode of clothing infants with their necks and upper part of the breast bare, cannot fail to render them more subject to the influence of cold, and its dangerous consequences. In this country, especially among the Germans, who are in the habit of clothing their children in such a manner, as to leave no part of the breast and lower portion of the neck exposed, Croup is an exceeding rare dis-

ease. Whereas in cities, or among people who adopt the mode of dress common in cities, this frightful disease is, in proportion to the population, vastly more frequent. During a practice of six years among the 'Pennsylvania Dutch,' he met with but a single case of this affection; and this case occurred in a family, who had adopted the present universal mode of suffering the neck and superior part of the breast to remain uncovered.—*Balt. Trans.*

QUICK WORK.—We were yesterday an eye witness to a specimen of despatch, which, had it not fallen under our own inspection, we should have been sceptical in believing. It was the operation, at the Fair of the American Institute, of reducing wheat in straw, to baked bread in *ten minutes*. The process was as follows:— Twelve bundles of straw were placed in a machine in the garden, which came out threshed in a minute and a half; the winnowing was effected in a minute; the grinding and bolting occupied a minute and a half; the dough was kneaded and the cakes formed in two minutes. The whole contents of the twelve bundles were placed in a kitchen range, and came out thoroughly baked in four minutes — making, in the whole, ten minutes. The cakes were distributed around, and they only wanted the aid of a cooler, and a few pounds of Goshen butter to have been swallowed in another minute, without the aid of mastication.—*N. Y. Gaz.*

CARBONIC ACID IN THE AIR.—Dr. Dalton, an English physician, who has for years turned his attention to the amount of carbonic acid in the atmosphere, says that he has satisfied himself that its average quantity in one part in 1,000. He is also of opinion that the quantity of this gas in the atmosphere is constantly the same in town and country, and that even in a crowded theatre it seldom rises to one per cent.

ADVANTAGES OF RAILROADS.—During the last war, a Company of volunteers left Baltimore for the Capitol — and by forced marches reached Bladensburg in *two days and a half!* A few days since, a volunteer Company left Baltimore in the morning in the *rail road cars*, arrived at Washington, and spent a greater portion of the day in that city, and returned home at an early hour in the evening. This circumstance shows the immense advantage which would result from the use of rail roads, in the event of a war with a foreign power.

METHOD OF PRESERVING CHEESE FROM WORMS AND MITES.—Grains of whole pepper, put into a vessel in which cheese is kept, will drive away the above mentioned insects.

HAMPSHIRE, HAMPDEN AND FRANKLIN AGRICULTURAL SOCIETY.

[Extracts from the Report of the Committee on the state of the Cattle Show, generally.]

In making a Report of the result of their examination of the various manufactures, the Committee take pleasure in saying, that the articles presented were much more numerous and of much better quality than those exhibited on any former occasion, for several years past. And it is gratifying to be able to state, that there has been a manifest improvement over former exhibitions in the quality and finish of the articles shown — though in the item of blue and other dressed cloths, there is a great deficiency in quality.

Flannels, floor-carpets, hearth rugs, woollen counterpanes, rose blankets, linen dlapers and sheetings, were of excellent quality.

The butter and cheese was of fine flavor; one lot of cheese from the dairy of Col. Gardiner Dickinson of Conway, deserves particular notice for its superior quality, and mode of manufacture. A letter in relation to it, having accompanied the cheese, and setting a good example for all others to follow, the object of such exhibitions being not merely to show a particular sample, but to communicate the way improvements are made, that others may derive a benefit from their experiments.

The Silk department was superior to that of any former anniversary in this county, and is a sure evidence that the silk cause is rapidly advancing within the limits of the society, particularly in the town of Cummington, where more silk is manufactured than in any other town.

The raw and reeled and manufactured article exhibited by Mr Austin Cobb of Cummington, was of excellent quality, and greater in quantity than were ever before exhibited here.

The raw and reeled silk exhibited by Mr Timothy Smith of Amherst, would do credit to any county, or any society.

The silk hoisery by Miss Sophia Dickinson of Hatfield, Miss Norton and Mrs Kingham, and Sewing silk by Mrs Tucker, all of Cummington, were of superior quality.

Mrs N. Hartshorn, of Northampton, exhibited specimens of the greatest quantity of cocoons, and of excellent quality.

Were we to judge of the silk business from what has been now exhibited, the time cannot be distant when every family might clothe themselves in silk of their own manufacture, instead of paying sixteen or seventeen millions of dollars annually to foreign nations for this one article.

The legislature of this State have granted a bounty for seven years on cocoons, reeling and throwing of silk, which will pay all the expense of feeding the worms, and of performing the reeling and throwing, so that the silk will be a clear gain

to the family in which the business is, or ought to be done, and through which our silk factories are to be supplied. And so important is this subject becoming, both as a matter of production and manufacture, that the attention of the most enlightened men, as well as the attention of state legislatures and of Congress, has been directed to it.

The Committee noticed a mammoth pumpkin, and a squash weighing sixtysix pounds, the product seed being brought from the Mediterranean, and raised in the garden of Mr Whitmarsh of Northampton.

There was also some large sugar beets from the garden of Mr Apthrop of Northampton, producing at the rate of nearly *forty tons to the acre*.

A machine for cutting potatoes and other vegetables for cattle, the invention of Mr Abel Williams of Ashfield, attracted great attention, and it is thought may be of great use.

In respect to the animals, the Committee will say generally, that they were more numerous and finer than on ordinary former exhibitions. And on cows, heifers and cattle for the stall they regret that the rules of the society did not allow them to award more premiums.

Several fine bucks were shown, but no lots of ewes. Swine better than last year, but might be improved by crossing the breed.

The subject of Agriculture is of vastly more importance than the mere term imports; and the annual shows ought not to be considered as intended for or confined to the farmers alone. And here the Committee feel compelled to remark, that a comparison with similar societies in the neighboring counties, places us decidedly in the back ground.

A prominent member of this society, and a distinguished public man in this county, now no more, once remarked that "the moment you pass the lines of the county on the east and west of the Connecticut river, you feel that you have entered another district" — the neatness of the farms, the excellence of the fences, the absence of brush in the highway — all told that thrift was there — and an examination of the stock and farming implements, and a nearer view of the domestic arrangements showed that the neatness which prevailed without, was but the consequence, or the accomplishment of the neatness and order and system and comfort and thrift which reigned within.

The old county of Hampshire was formerly noted, almost to a proverb, for being in point of beauty, fertility of its soil, and the morality of its population, one of the finest counties in the country, and unsurpassed in its general agricultural advantages by any one in New England.

And while our neighbors in the adjoining counties, with soil far inferior to ours, and possessing far less natural advantages, are outstripping us in

agricultural improvements, shall not their example stimulate us to renewed and increased exertions to stimulate all classes of our people to give their countenance, and lend their co-operation, in the adoption of such measures as shall render these anniversaries more interesting and useful, and induce all to feel that strong individual as well as combined efforts are necessary to carry into complete effect the great and useful objects for which the society was originated.

In behalf of the Committee,
Oct. 19, 1836. EDWARD DICKINSON.

THE THAMES TUNNEL. — It is now no longer a matter of doubt whether this wonderful undertaking will be completed. Science and perseverance have triumphed over all difficulties, and we may now expect, with well founded confidence that it will not be long before the public "will be enabled to go into the tunnel at Rotherhithe and come out at Wapping." It appears that more than 700 out of the whole 1300 feet have been completed; that the work is now proceeding at the rate of 4 1-2 feet per week, and that this weekly rate will soon be increased to 8 or 9 feet. When it is considered that the stupendous shield which Mr. Brunel has constructed to obviate the difficulties formerly encountered, weighs no less than 10 tons, and is propelled under the bed of the Thame, sustaining a pressure of 8,00 tons, we must regard this as a rapid progress. But that which gives the skill of the engineer in the most conspicuous point of view, is the fact that the material through which the shield is now proceeding with the most perfect safety, is in a semi fluid state.

APPLES FOR FATTENING HOGS. — Although the attention of our readers has been before called to this subject, we believe its importance is too little appreciated generally; and as the present is the season for action, we shall lay a few facts before them, showing the advantages of employing apples as food for fattening hogs, over other substances. We shall first endeavor to show that they are a valuable kind of food, and secondly, that they are a cheap one.

First, with regard to their value. A correspondent of the Maine Farmer in 1834 made the following experiment. He commenced feeding his hogs on apples in August. A pig four months old and weighing 95 pounds, was fed 18 days as follows: — first, two bushels of sour apples, boiled with six quarts of oats and pea meal, weighing four and a half pounds were given him. At the end of six days he had gained six pounds. — He was then kept six days on the same quantity of boiled sweet apples and meal, at the end of which time he had gained six pounds more. He

was next fed on an equal quantity of boiled potatoes and meal, and at the end of six days he had gained only five pounds. Here the superiority of both sweet and sour apples over potatoes was decisively shown.

A correspondent of this paper at Lockport, in a communication last winter, states that he shut up seven hogs about fourteen months old on the first of October; they were in poor condition, and estimated to weigh about 150 lbs. each, and worth in the market 12 1-2 cents per pound. — They were fed fifty days on apples, mostly sour, boiled with a small quantity of water, with the addition of a bushel of bran and a pint of salt, to three bushels of apples. At the end of fifty days they were fed with twelve and a half bushels of soft corn in the ear, and afterwards slaughtered. The average weight of each was 272 pounds. Estimating the apples at 25 cents a bushel, the bran at 6 cents, and corn at 62 1-2 cents, the whole expense was \$77,55, and the pork at \$6,12 1-2 per cwt. \$116, leaving a clear profit of \$41,45. See how experiment detailed, in *Genesee Farmer*, current volume, p. 61.

These experiments it will be observed, were with *cooked* apples. The practice has also succeeded when they have been fed in a raw state; though the latter is not as profitable, except on a very small scale, when the trouble and expense of cooking would be comparatively greater. In the following experiments, the apples were given uncooked. A correspondent in Onondaga county turned thirty hogs and from thirty to forty shoats and pigs in an orchard of 400 trees about the 15th of September and they remained there until the latter part of November when they were slaughtered, with the exception of twelve dollars worth sold alive, and about a dozen retained as store pigs. They yielded about 5,450 lbs. of first rate pork, fattened on apples wholly, without any grain. This was the fourth experiment of the kind made by the writer, all of which were attended with complete success.

In the 5th volume, page 324, of the *Genesee Farmer*, S. P. Rhoades of Skaneateles says, "A friend from Massachusetts informs me that he shut up a hog by himself, and fed him entirely on apples and water, last fall, and that he became very fat, was well filled, and the pork was hard and sweet as that fed on corn." He also states that when turned into an orchard where there are both sweet and sour apples, hogs will eat about as much of one as of the other.

In the *Brattleborough Messenger*, a correspondent says, "A man in Guilford, conversing on this subject, said to me, 'There is a hog that will weigh over two hundred; I brought him home in July on my back. I have given it nothing but apples, and a little slop for drink.'"

Secondly, with regard to the cheapness of this kind of food. This may perhaps be best determined by calculation. We will suppose that an orchard is planted on an acre of ground, and that the trees stand at a distance of twenty five feet asunder, which would not be too near when they are merely intended for this purpose. This would give about seventy trees to the acre. The trees at twenty five cents each would cost \$18,75; and the expense of planting, supposing each tree to cost ten cents each, would be 7 dollars. While the trees are small, the land may be tilled and will produce as much as before; and from the time they begin to bear, they may be considered as paying for the ground they occupy, by their fruit. Such an orchard, therefore, in a good bearing state, would cost as follows:

One acre of land	\$50 00
Seventy trees,	18 75
Planting,	7 00
	<hr/>
	\$75 75

The annual interest on this sum at seven per cent. would be \$5,30, which would be the actual expense of each crop, as the pasture of the ground would pay for gathering. If each tree bears on an average five bushels a year, (this is low estimate if the most productive varieties are selected,) the annual crop would be three hundred and fifty bushels, which according to the preceding calculation would be at the rate of one cent and a half a bushel. Estimating the cost at double this, the clear profit in the second experiment before stated, instead of being \$41,45, would actually be \$74,45.

One of our neighbors, last year, made forty dollars from a small orchard of about an acre, by fattening hogs, and reserved a large supply for winter and other use.

If instead of feeding potatoes to their hogs, farmers would sell their potatoes, and purchase apples for this purpose, they would find it to their advantage. In ordinary seasons, apples suitable for feeding may be had at one quarter the price of potatoes, or even less, and their superior value has been already shown. It would be far preferable, however, if they would raise their own apples, of kinds expressly for this purpose.—*Genesee Farmer*.

SILK CULTURE.—We have received from Mr Kenrick of Newton, the indefatigable student of vegetable nature, his annual "catalogue of fruit and hardy ornamental trees, shrubs, herbaceous plants, &c." cultivated at the extensive and well known nursery of Nonantum Hill. To this publication is appended a most interesting and valuable memoir on the culture of Silk, and the treatment of the Mulberry—a paper which recom-

mends itself to the attention of every friend of Home Industry, and deserves circulation through the country. Such men as Kenrick are the real benefactors of our race. Theorists may think and elucidate—practical men may experiment and execute; but those who, like our author, combine both characters, affording example as well as precept, are the teachers to whom their fellow men may most confidently look for profitable instruction. The little treatise before us, comprising less than a dozen duodecimo pages, is stored with information worth millions of money to the American people. It is a remarkably lucid exposition of the whole phenomena of the Silk mystery—and in a form as concise as its style is clear and attractive. Were we not apprehensive of infringing on the courtesies of authorship, we should forthwith commence transferring these pages to our columns. At all events, we shall have occasion frequently to refer to its details and directions; and with leave of Mr K. will hereafter republish the whole. Meantime we cannot forego the gratification of copying the few paragraphs subjoined, being the closing portion of the work:

"The value of silks imported into the United States, during the year ending Sept. 30, 1835 as stated on the authority of the Hon. William Jackson, member of Congress from Massachusetts, amounted to \$16,497,980, this being the original or first cost in the foreign country. During this period only \$486,572 worth of this great amount was exported; and the actual cost of the above to the American people, or the whole retail cost to the actual consumer, may be fairly estimated at more than \$22,000,000 for the year. Most of all this was imported from Italy, Switzerland, and from France: formerly half our imports were from China. Yet neither the articles of raw silk, nor any of those numerous, substantial and elegant fabrics, which are composed of part silk and part cotton, or of mixtures of silk and worsted are included in the above amount. And the demand for silks which is now so great, is continually increasing. Not half this amount was consumed six years ago; and since 1821, and durign fifteen years, the annual amount of silks consumed has doubled twice.

Silk is believed to be eminently adapted to the soil and climate of every division of this great republic; our serene atmosphere is peculiarly favorable to its growth, and the prolonged and vigorous state of vegetation during our summers. The genial climate for silk is ours, and the highly favored soil of one whole continent of the great western world, which, by an especial providence, with the exception only of Mexico, has fallen to our share and is ours exclusively.

Our advantages are indeed very great — to be duly appreciated, they must be estimated singly and individually; how much greater and more striking will they then appear, if considered collectively — our innumerable rivers and rapid streams, our immense forests and mines, the exhaustless treasures of fuel and of flame, the combined elements of water, earth, of fire, and of mighty power, await — offering resources unknown and immeasurable, and willing aids in abridging the labors of man.

History will record to endless remembrance the names of those illustrious individuals who have persevered as the faithful guides and pioneers in the great work — those who by their example or writings have served as lights, to illumine our way, and to cheer us through the long, dark and dreary night.

Hope dawns auspicious, the day and its brightness will be ours: endowed as are our people with fortitude, with energy, and with intellectual resources unsurpassed, is there one American who can doubt?

By those unceasing toils and mighty efforts, and matchless labors for which our people are so distinguished, the millions thus recovered will not only be their just reward, but will add to the substantial wealth of the nation and to the glory of the whole republic." — *Nantucket Inq.*

EXPERIMENTS AT SEA. — We are indebted to a friend, who has just arrived from Europe, for the following. — *N. Y. Enquirer.*

Experiments made on board the Charlemagne. — 26th of September, 1836, the weather being calm, I corked an empty wine bottle and tied a piece of linen over the cork; I then sank it into the sea six hundred feet; when drawn immediately up again, the cork was inside, the linen remained as it was placed, and the bottle was filled with water.

I next made a noose of strong twine around the bottom of a cork, which I forced into the empty bottle, lashed the twine securely to the neck of the bottle, and sank the bottle six hundred feet. Upon drawing it up immediately, the cork was found inside, having forced its way by the twine, and in so doing had broken itself into two pieces; the bottle was filled with water.

I then made a stopper of white pine, long enough to reach to the bottom of the bottle; after forcing this stopper into the bottle, I cut it off about half an inch above the top of the bottle, and drove two wedges of the same wood into the stopper. I sank it 600 feet, and upon drawing it up immediately, the stopper remained as I placed it, and there was about a gill of water in the bottle, which remained unbroken. The water must have forced its way through the pores of the wooden stopper, although wedged as aforesaid, and had the

bottle remained sunk long enough, there is no doubt but it would have been filled with water.

Col. Charles Biddle, a citizen of the U. States, in conjunction with a few capitalists in this country, have obtained a contract for a Rail Road across the Isthmus of Panama, which promises, if completed, to be of immense importance to our commerce, and to the whole world. It must become, in a few years, the highway of nations to the Pacific Ocean, and will enable our whaling ships to make their return every six months, instead of three years, as well as save a dangerous voyage around Cape Horn.

Framingham, Oct. 29, 1836.

MR FESSENDEN: — Some time ago I promised to write you an article on Ploughs and Ploughing. We farmers are rather set in our notions of husbandry, and each of course prefers his own mode until fully convinced of a better.

Ploughing, is the most important operation in husbandry, and should be closely attended to by all who choose this mode, "to turn the world upside down;" and with a good plough we can do this with much less hazard to the community than our Political Mountebanks, or Trades Union associations.

The best ploughing is that which most completely subverts the soil and buries beneath it the entire vegetable growth. To effect this a good plough is indispensable. Rough and stony ground may indeed be rooted up by the short rooter plough. Such lands are usually cross-ploughed before planting. Plain fields require a different instrument; a much longer plough is wanted here, to turn the furrow flat without breaking and without the aid of the Ploughman's foot. Such an instrument runs easier than a short one, because it enters the earth more gradually, as a thin wedge opens wood more easily than a thick one. The furrow rises less suddenly on the inclined plane of the mould board, and falls where it should do, in the bed of the preceding furrow and completely fills it. To make sure work the coulter or cutter should not stand perpendicular, but should lean to the right being placed a little anglewise in the beam for this purpose, and cutting the edge of the furrow slice in a bevil form, it will then shut in like a trap door. Let not my brother farmers be alarmed lest their lands be turned too flat! If they wish to see them lie edge up, or shingled, one furrow upon an another, or broken into short junks, they can use a short rooter or a post, as the Africans do. "But," say they, "the soil should be light." Newly ploughed green sward always lies too light the first summer and requires thorough rolling and harrowing, to prevent its suffering for

want of moisture; for unless the particles of earth &c. come in contact, capillary attraction ceases and the turned sod draws no moisture from the subsoil. Hence our crops, in a dry season, suffers more on green sward than on old ground.

There is no danger of laying the green sward furrow too flat; if turned as it always should be, when the grass is green, that and the roots soon begin to decay, and in our summer months your horses will break through the sod as he passes and demonstrate to you that the furrow does not lie close enough.

The advantages arising from this mode are, we cover up and set to fermenting the whole mass of vegetable matter that covered the soil—we destroy all the noxious weeds—we render the surface smooth and much more easy to manage, and we avoid making loose and broken sods in seeding down to grass—for the furrow thus laid flat should never be disturbed till a new breaking up after a course of grass crops. If seeded down to grass in this state it will not lie so heavy and will not want to be disturbed again so soon as if it had been completely pulverized before seeding. Ploughs for our plains should, therefore, be made long—they run more steady and cut the furrows more true: and it is not green sward only that should be turned flat—stubble land, weedy lands, cornhills, should be ploughed flat, and that only once till the matter turned underneath is decomposed. In preparing corn land for spring sowing, therefore, a heavy harrow should be first used. Make the surface as level as possible with this, then let the plough turn the soil once over and no more before sowing. This furrow may be as fine as you choose, but when once you have turned this mass of stalks, and weeds, and grass underneath, it is absurd to disturb it during the same week or month—we do much injury by ploughing too often—we undo our own work.

The Ploughs in common use are quite too short in the waist. For thirty years past we have made no improvement in this instrument excepting in the regularity and smoothness of the mould board.

Yours,

WM. BUCKMINSTER.

It has been remarked that Rats frequently repair to fields of grain for the purpose of procuring their food easily, and that on the approach of winter they return, with increased numbers, to their more comfortable domicils in the barn, the stable, or the cellar. This circumstance might be turned to advantage, if proper pains were taken to destroy the vermin before they leave the fields, and with a good terrier this might be effectually done. A dog of this species belonging to the Coll. of H. M. Customs here, killed sixtyfive rats in a field here at three sets to. When it is recollected what

injury rats do to the foundation of buildings, and what waste they create of provender and of all kinds of vegetables, any mode which could be adopted to extirpate them should be made generally known.—*St. Andrews N. B. Standard.*

THE SPEED OF STEAMERS.—I have myself proved by experiment on canals, that when the speed of the boat is increased beyond a certain limit, its draught of water is rapidly diminishing, and in the case of a large steam raft constructed on the river Hudson, it was found that when the speed was raised to twenty miles an hour, the draught of water was diminished by seven inches. I have, therefore, no doubt that the increased speed of steamers is attended with a like effect; that, in fact, they rise out of the water, so that although the resistance is increased by reason of their increased speed, it is diminished in a still greater proportion by reason of their diminished immersion.—*Lardner on the Steam Engine.*

SILK.—The National Gazette of the 18th ult. has an ably written editorial article on the subject of British and American finance, in which we find the following bold though just assertion:

Thirty years will make the *Silk* of the United States a prodigious article of production, a step second only to cotton.—*Balt. Eur.*

SILK MANUFACTURE.—At Paris large plantations of the mulberry tree have been commenced, with a view of trying whether the climate in the neighborhood of the city be not well adapted to the production of raw silk, which is now imported in great quantities from Italy.

Mr Westbrook, of Muskingum Co. Ohio, has found that the Chinese Mulberry grows with the greatest luxuriance in that soil, and has this season raised to crops of worms, and two of cocoons in succession.

GAS LIGHTING.—A new mode of transporting gas is about to be adopted in Paris. The Triumphant Arch de l'Etoile, the Prefecture of the police, and the Mint, will shortly use what is called "the portable gas, compressed," by which the laying of subterranean gas pipes is entirely avoided. This has already been used with success in the city of Rheims. The discovery of the *uncompressed gas* is due to M Huozean Nuivon, a distinguished Chemist of Paris.

FATAL ACCIDENT.—A lad named Joseph Hage was killed in the paper mill at Dover on Monday week. He accidently became entangled in the machinery, and was so sadly injured that he expired the next day.

(From the Plymouth County Republican.)

REPORT.

Mr President and Gentlemen Trustees,

The Committee on Improvements appreciate your kindness in placing them in a situation to see the results of experiment made by our most judicious and enterprising farmers. In discharging the duty assigned us, we find ourselves in a school where numerous lessons can be profitably reviewed, and where some new ones are presented, which should not be neglected with that easy and specious apology under which we endeavor to extenuate the guilt of a multitude of sins, that we are wearing hoary heads and new lessons belong not to us. It is incumbent on us to receive lessons and present them for the consideration and application of others. This branch of our duty, it is obvious, cannot easily be as impressively performed as the duty assigned committees in some other departments, where the results of experiments are seen. Your pens filled with fattened, beautiful and useful animals, shew the skill of farmers in feeding and their judgment in selection. Yonder field, where one of our morning hours passed, proved how much care and kindness can effect in training oxen to all that is useful in their labor. The curious implements produced by mechanic ingenuity strengthen your hopes that labors will be lightened and facilitated to an extent that will remove all reasonable foundations of avoiding them as irksome. The pleasant impressions produced in the hall of the manufactures, are renewed as often as you look up and see many of the delicate hands which wrought those curious articles.

Our department embraces objects of first importance, but we can come before you only with a report of cold descriptions drawn by a cold genius. Could we give a clear view of the rich grass fields we have traversed and all the preparations we have seen to nourish useful plants, you, Gentlemen, would hope the progress of improvement will soon deliver us from the repetition of an occurrence so disgraceful to an agricultural community and so mortifying to every enlightened citizen as was witnessed the last year in the importation of English hay from France. Could we bring before you the stone walls made for the protection of fields, you would suppose no animal would attempt to leap them, unless you should think of the political aspirant, against whose inroads there can be no effectual defence but in the presence and vigilance of faithful watchmen. Besides leaping all sorts of fences, the ardent pursuer of place and power not unfrequently contracts another even more vicious habit, one more dangerous to the welfare of society; they acquire the habit of standing on the fence, gazing into all the fields around them, with the purpose of presently

leaping where the richest pasture is found. Some of our wall might greatly endanger their legs; however, let them make the attempt if they choose, for the community can very well afford the loss of some such legs.

Several objects proposed by the Trustees have not attracted enough of the attention of our farmers to induce them to enter claims to the premiums offered. We hope this neglect is to be accounted for by some peculiar circumstances embarrassing to farmers the past season, rather than to any growing indifference to the agricultural interest. For, if this be suffered to decline, every other interest in society must be injuriously affected.—Farmers have experienced much difficulty in obtaining the necessary laborers to carry forward improvements. We are annually importing thousands of them, yet few are employed on farms; public works and populous towns take up most of them. Of native citizens, a pretty numerous class, who might have honored themselves and added something to the general stock of wealth in the cultivation of paternal or acquired farms, have been induced to abandon in a great measure so humble interests, and engaged in the ardent pursuit of sudden riches in moon-light speculations. Knowing that the wealth of individuals never can make ample amends for the injuries the community always sustains in rash pursuits, we hope an early return of these citizens, to what they may now think less inviting employment, but where moderate gains are much more certain.

The Trustees in the year 1834, offered a premium of \$40 claimable the present year, for the best plantation of forest trees raised from the seed. This premium is claimed by Ebenezer Copeland of West Bridgewater. He sowed more than an acre with white pine seed in the spring of 1827. He has now about 1400 trees on the acre, most of which are in flourishing condition. Mr C. has sowed several other kinds of seeds on the same field, birch, button wood, white ash, maple, oak, walnut, with which he has hitherto had very little success. On this statement of facts and the absence of other claims, it may be supposed that Mr C. will be considered entitled to the premium. But the committee have thought it their duty to inquire whether the purpose of the Trustees have been accomplished in the character of the soil and the situation where the forest has been planted. They certainly did not intend to encourage the conversion of fields capable of yielding a succession of good crops of grain into pine forests. We think that in nine years engagement in experiment Mr C. should have qualified himself to communicate something mere of information. He would have performed a useful service in planting pine seed in different years, in spring and in autumn, placing the seed at different depths in the earth

and noting the results. These are points on which we want instruction, and can obtain it only in repeated experiments. Books at present give but very little information. In Europe pine trees have long been propagated to some extent from seed, but writers on this subject generally recommend sowing the seed in nursery beds, and transplanting the trees. Pine forests cannot be raised here in such manner without an essential change in our habits of labor. We must raise them from the first planting, or we shall not easily engage men in the work. We want information concerning the best time and manner of planting. The experiment of Mr C. your Committee are not disposed to undervalue; he has proved the practicability of what some have doubted, that promising pine forests can be raised from seed artificially sown. The greatest error in the experiment, in our view, was the choice of soil and situation; we think not improbable that the successor of Mr C. will demolish that beautiful grove of pines for the purpose of cultivating the soil. We feel authorized to indulge such anticipation from the statement given of the crop taken the year before the trees were planted. With these impressions we deem it inexpedient to recommend the award of premiums, but hope the Trustees will notice and reward the praiseworthy exertions of Mr C. in a gratuity of thirty dollars and one volume of the Complete Farmer.

We have the satisfaction of stating that a number of gentlemen in the county have entered on experiment in raising forest trees. Several have planted the locust to a considerable extent, but have lost many of them by the severity of the winter. We hope this circumstance will not discourage the planters of the locust or the mulberry tree, for we shall not be likely to experience a long succession of winters so unfavorable to young trees as some of the passed. From trials made it appears that locust and mulberry trees require more care and labor in their early growth than forest trees generally.—We must dress them, some of the first years, with about the same care we do garden plants, to ensure success.—We believe some cultivation is necessary in raising a garden of oaks; there is, however, but one artificial forest of this kind in an advance state, within our knowledge, in that, there was some cultivation. Some attempts have been made to propagate forest trees on common lands, without fence; these have proved nearly abortive, from the ravages of cattle which are suffered to range without limits, and have no more respect for our young trees than radical politicians have for the doings of their predecessors. We have large tracts of land in this county, of no use at present, which would soon become spontaneous forests, if the owners of cattle could be persuaded or compelled to keep them

at home.—Pasturage in common, if it ever proves beneficial to individuals, is a very great scourge in the community; as long as it is suffered, we shall do wisely in giving encouragement to the raising of protected forests. Wood and timber are becoming so important articles as will justify very liberal encouragement.

Four claims have been regularly entered for building stone wall in the year beginning September 1st, 1835, and ending September 1st, 1836.

We recommend the award of the first premium of thirty dollars and one volume of the Complete Farmer to Mr Nehemiah Howard, of West Bridgewater, who has built 92 rods of good stone wall and managed his farm judiciously in other respects. The second of \$20 and 3 volumes N. E. Far., to Mr Robert Barker, of Pembroke, agent of Mr Job Turner, of Boston, who has built 63 rods of new wall, and rebuilt 21 rods of old wall. The improvements on this farm as, will appear in the statement have been very great which circumstance induced the Committee to add to the premiums an unusual number of volumes of the Farmer.

The third of ten dollars and one volume of Complete Farmer, to Mr Nathan Snell, of West Bridgewater, who has built 63 rods of wall.

The fourth claim is in the name of Mr Josiah Hatch, of Pembroke, agent of Capt. Josiah Barker of Charlestown; on that farm 55 rods of very substantial and ornamental wall have been built. The quantity in this case being so near an approach to that of successful claimants, and the improvements proceeding on the farm so commendable, we recommend that a gratuity be given of seven dollars, and one volume Complete Farmer.

Two claimants only to the premiums offered for manure, have made returns to the Committee. We recommend that the first premium of thirty dollars and two volumes of the N. E. Farmer, be awarded to Mr Philip Brewster, of Hanson, who has made six hundred and seventy six loads. Some of this manure will have no greater influence on plants than many substances which almost every farmer can find treasured in some pond hole, or in a neglected hedge-row on his farm. But the exemplary industry of Mr B. in collecting the materials, his judgment in the application of them, in the renovation of several acres of swampy land, deserves much commendation.

We recommend the second premium of twenty-five dollars and one volume Complete Farmer, be awarded to Capt Abram Washburn, of Bridgewater, who has made four hundred and ninety-nine loads of rich compost manure. This gentleman enjoys a peculiar privilege in the possession of two cellars under the stables of a public house, where he is able to make compost to a great extent without the application of much labor. Notwithstanding this privilege and the variety of his avocations,

he has not been unmindful that there are hidden treasures in the field. About one hundred and fifty-five loads were taken from a pond-hole, which the Committee believe will prove very valuable manure.

“*Wise* Sir, we are obliged to pause in want of claims. You allow us more money, which we should rejoice to award to merit. But our farmers either neglect the labors necessary to give them merit, or feel too independent to ask any reward of us. If there be neglect of labors, if improvements be not proceeding, our prospects are growing not merely disheartening to the ardent friends of agriculture, but alarming to every patriot.—The signs of the times seem to justify the broad assertion, that nothing short of the strong attachment to our native soil which is generated and confirmed in a course of good cultivation, can save this country from the prevalence of mobocracy and lynchism. To negligent Farmers, we say, rouse! your honor and independence are at risk; your country calls for your exertions. In years when the influences of the skies are propitious, scorn the idea, as one direct step towards a relapse to colonial dependence, of going to Europe for your bread stuffs.—If with all our variety of soil and climate, we will not bestow the necessary labor to obtain articles of first importance, the time may not be far distant when, rather than submit to the inconveniences of an electioneering campaign, we shall be inclined to take our President from Europe. No doubt we could be furnished with such an article from there, at very small first cost. The easy, independent farmer, who is satisfied with the reward he receives from his soil, who thinks it too trifling an object for him to seek a premium, we earnestly invite to come and shew us what he has accomplished; come for the sake of example; come, in support of a good cause.

Respectfully submitted,

MORRIL ALLEN, *Chairman.*

BERKS COUNTY SILK.—We have recently examined a specimen of *Sewing Silk*, the first ever manufactured in this county, and it was of such a quality, and the manner of its production so creditable, that it did our hearts good. It was the entire production of a young lady near Reading, one of Berks county's fairest daughters, who reared and fed the worms, spun the silk from the cocoons, and doubled and twisted it into skeins, all with her own hands. Here now is the example set to our young ladies, and we are persuaded they are about to imitate it, as a large quantity of mulberry seed has gone into different parts of the county from this place. How irresistible would be the charms of the young lady, when dressed in the fabric of her own hands' produc-

tion, and how eagerly would the *beaux* press forward for her hand!—And well might they seek such wives, for they would be worth having.—*Reading Press.*

(From the Maine Farmer.)

REPORT OF INCIDENTAL COMMITTEE.

The Incidental Committee appointed by the Kennebec County Agricultural Society, having attended to the duty assigned them, submit the following Report:

We have examined with a very lively interest the machine for spinning and twisting Silk, presented by Mr Adam Brooks of Scituate, Mass.—Although your committee have no practical knowledge of the art of reeling or spinning silk, yet as Mr Brooks, having provided himself with cocoons, was able to give us a practical illustration of the operation of his machine, we were convinced of the justness of his claims to excellence, by witnessing the ease and despatch with which it performed the business for which it was designed.

Taking into consideration the already great, still increasing, and wide spread interest that is manifested in the silk business—the importance of that business—the undoubtedly good policy of encouraging it, and the extensive usefulness of an efficient labor-saving machine, as an auxiliary thereto, we cannot but feel, so far as the funds at our disposal will allow us to, very liberally disposed towards Mr Brooks, and cordially recommend that there be given to him a gratuity of ten dollars.

MR BROOKS' STATEMENT.

To the Incidental Committee of the Kennebec County Agricultural Society.

Agreeably to your request I make the following statement respecting my domestic Silk Spinner and Twister presented in operation for your inspection — with some remarks on the first process of manufacturing Silk from the cocoons.

With one of my improved Silk Spinners and Twisters, such as the one presented, having three spindles, a boy and a girl twelve or fourteen years old can spin from 150 to 175 skeins of sewing silk in ten hours from the cocoons, and finish them ready for cleansing and coloring. Or they may prepare nearly as much twist in the same time. They can spin more in length than one seven knot skein, each knot containing 80 yards in length to each spindle per hour.

One person can manage the cocoons and threads while running or spinning sewing silk for six spindles, and running at the same time and moved by water, steam or horse power, and if the cocoons are of the best quality, even more than this if the threads are wanted fine for warp

or filling. I think that it is evident from the nature of the case that the silk spun immediately from the cocoons into a finished thread, which the gum or glue upon them is thoroughly soaked, as it is when it is running from the cocoons will be better united in its fibre than it can be by being reeled in the common way, as has heretofore been done, before it is throwsted or doubled and twisted.

By reeling the cocoons into what is called raw silk we derange nature's perfect work; for the silk worm spins the thread perfectly even and smooth, and winds it up into a perfect ball as every good cocoon should be. This may be unwound without waste or tangling. The very great speed that may be applied to the ring spindles and travellers which I now make use of, and which seldom get out of order, even with the greatest velocity, turns the spinning from the cocoons greatly in favor of its being done at one operation, as it is not only cheapest but best and easiest. I now make silk spinning frames to contain any number of spindles to go by any power, and so constructed that the person tending the cocoons can stop any two threads when necessary, while the others are going, or can set them in motion again in an instant without leaving the pan in which the cocoons are placed. One very essential property of the ring spindle is this—they may be so adjusted as to twist the finest thread is wanted for weaving, or the coarsest sewing silk.

With respect,
ADAM BROOKS.

Winthrop, Oct. 13, 1836.

BEES.

When the queen-bee is forcibly taken away from the hive, the bees which are near her at the time, do not soon appear sensible of her absence, and the labors of the hive are carried on as usual. It is seldom before the lapse of an hour, that the working-bees begin to manifest any symptoms of uneasiness: they are then observed to quit the larvæ which they had been feeding, and to run about in great agitation, to and fro near the cell which the queen had occupied before her abduction. They then move over a wider circle, and on meeting with such of their companions as are not aware of the disaster, communicate the intelligence by crossing their antennæ and striking lightly with them. The bees which receive the news, become in their turn agitated, and conveying this feeling wherever they go, the alarm is soon participated by all the inhabitants of the hive. All rush forward, eagerly seeking their lost queen; but after continuing their search for some hours, and finding it to be fruitless, they appear resigned to their misfortune, the noisy tumult subsides, and the bees quietly resume their labors.

A bee deprived of his antennæ, immediately becomes dull and listless; it desists from its usual labors, remains at the bottom of the hive, seems attracted only by the light, and takes the first opportunity of quitting the hive, never more to return. A queen-bee, thus mutilated, ran about without apparent object, as if in a state of *stetium*, and was incapable of directing her trunk with precision, to the food which was offered to her. Latreille relates that, having deprived some laboring ants of their antennæ, he replaced them near the nest; but they wandered in all directions, as if bewildered, and unconscious of what they were doing.—Some of their companions were seen to notice their distress, and approaching them with apparent compassion, applied their tongues to the wounds of the sufferers, and anointed them with their saliva. This trait of sensibility was repeatedly witnessed by Latreille, while watching their movements with a magnifying glass.—*Dr. Boget's Bridgewater Treatise.*

The following incident, illustrative of the affection of bees for their queen, is very graphically described by Mr Bagster, in his work on the *Management of Bees*, an occupation to which the author seems to be enthusiastically attached. Our readers are probably not aware that the process of taking the honey is not necessarily attended, as was formerly the case, with the destruction of the wonderful little insects, who with so much labor and skill have hoarded their treasures as a provision against future exigencies. A species of large mushroom (*Fungus maximus*), commonly known by the name of "hunt," "puckfast," or "frog-cheese," is humanely employed by those who wish to spare the lives of their bees, whilst taking possession of their sweets. A small piece of this "puck," previously dried, and properly prepared, being ignited and placed underneath a hive, operates by its vapor as a powerful narcotic upon the bees which fall unhurt into an empty hive, placed to receive them. By exposure to the fresh air, these bees are soon restored to health and activity; when they set about repairing the loss which, during the temporary suspension of their busy existence, they have sustained. Mr Bagster had been taking some stocks of honey, in the way we have just mentioned, when an accident happening to one of his hives, the queen bee was thrown out, and a scene of distress and considerable confusion ensued.

"I thought," says Mr Bagster, "that I might put the queen into possession amongst some of the comb; but to be certain, I gathered up every bee I could find, and put the emptied hives on their side against mine, so that the queen might have every opportunity to get in, if not already there. The profusion of spilt honey, the hot weather, and the bees from my other hives, caused a great com-

motion, so that the real cause, the absence of the queen, was undiscovered. The next day the same hurly-burly continued; when, fearing that my queen was unseated, I took an apianian friend to form a judgment. It was his opinion that there surely was a queen in my new hive, or that, if destroyed, one soon would be made out of the brood comb. I pointed to groups of bees on the grass, and around the stand, sili fearing that my queen was among them; but he so positively said such was not the fact, that I did not then examine any of the masses. Naturally inquisitive under such circumstances, I visited my perturbed hive late in the evening, and found, while the others were quiet, that this was in an uncomfortable state. All the masses or companies of bees, which had been licking up the dropping sweets through the day, had now retired, save only a lot, about as large and as round as a small cricket-ball. At dark I again visited them — hope revived, for the mass remained unmoved: by the earliest peep of day I rose from bed, after a sleepless night to look for my beauty.

“I confess myself an enthusiast; I laid myself at full length on the grass, and with my hand opened the benumbed, but still clustering, mass: there was the queen, surrounded by her faithful and watchful subjects, paralyzed, and to all appearance quite dead. I picked her up, placed her in my hands, breathed upon and cherished her for a considerable time until, I think with joy of a new kind, I saw her move one joint of one leg; my tender care was renewed until the sun had mounted high in the heavens, and by his beams renewed the perturbation of the defenceless hive; and then, indeed courage was necessary, for the bees had just missed their queen. To these alone who have witnessed such commotion can an idea be conveyed.

“Now came the delightful scene,—my queen was restored by the genial warmth of my hand, and walked comfortably about it, the bees, her subjects, were whirling in incensed crowds around the hive; the buzz of discontent was incessant, and clearly marked. At this moment, I called all who were in the house to witness the scene. I placed the queen on the alighting-board at the door of the hive: she was recognized in a moment; the pass-touch, or pass-word, or pass-hum was communicated. The great commotion was instantly changed to peace. She was caressed,—licked over and fondled,—the bees pressing round, who, with an affection worthy of the best subjects of a beloved monarch, showed their attachment in terms that even human tongues could not exceed.

“From that moment all was peace and harmony, and joyful labor. Very few of the brood were destroyed by the accident which gave rise to the

development of this peculiar instinct; and I hope I treasure up the remembrance of the circumstance, as one more proof of the truth of that passage of Scripture, ‘God doeth great things, and unsearchable; marvellous things without number.’”

EFFECTS OF LIGHTNING.—M. Baric, of La Haye, has communicated to the French Academy of Sciences the remarkable growth of a poplar which had been struck with lightning. It grew in an avenue belonging to him. The lightning broke some branches at the top, and the fluid ran along the trunk, from the top to the bottom of the northern side, without injuring the bark, went into the ground at the root and turned up two large masses each nearly a cubic foot in size. The tree at that time measured twelve inches in circumference, and it was in the month of July that the circumstance occurred. In April following, the trunk had exactly doubled its size, while the trees close to it retained the same girth; and the sap flowed in such abundance as to force its way through the bark.

LIGHTNING.—Perhaps human ingenuity and daring were never more strongly manifested than in a recent instance in Prussia.—In order to get rid of an enormous rock, the expense of removing which, by ordinary means, would have been as enormous, a deep hole was bored in it, into which was fixed a bar of iron, twentyeight feet high, for the purpose of attracting lightning. The experiment was successful. On the first thunder storm, the rock was shattered into fragments which of course was easily carried away.

Sir Walter Scott in one of his letters, lately brought to light, alluding to his fondness for planting and agriculture, playfully says, “I promise you my oaks will outlast my laurels; and I pique myself more on my compositions for manures, than on any other compositions whatsoever, to which I was ever accessory.

A farmer in Southampton took one hundred and fifty bushels of potatoes from a single acre of land for his own use, and sold the remainder of its product for one hundred dollars.

BUTTER is selling at from twentyfive to thirty-one cents a pound at Columbia. The Spy says it is some fifteen cents more than the article is worth, and affords clear profit to the manufacturers of at least one hundred per cent. The editor blesses his stars that bread and molasses agree wonderfully with his stomach.

It is said that the property of the famous Rathbun, of Buffalo has sold much better than was anticipated, it is thought that his creditors will get all their demands, principal and interest.

(From the New England Farmer.)

FARMERS' WORK.

LIQUID MANURE.— Water, in its purest state, when it has been distilled or filtered through sand, still retains somewhat of the food of plants. Its component parts, oxygen and hydrogen, under certain circumstances, are seized by vegetables while in their growing state, and converted into the products which form the constituents of all plants. But pure water forms a comparatively meagre diet for plants. It may support life in vegetables, and some plants with no other nourishment than that which is afforded by pure water and air. But when water is impregnated with certain salts and gases, particularly such as are evolved during the fermentation of vegetable and animal substances, it becomes what is called *liquid manure*. Urine, or the stale of animals is water holding in solution certain salts and other substances, which constitute food for plants.

It is therefore, very important that the floor under a cow house or cattle stall should be kept very tight, so that none of the stale may be lost, which, when mixed with other substances, is very valuable as manure. A farmer, said Dr. Deane, would be no more blame worthy for throwing away the dung than the urine of beasts, which contains abundance of fertilizing salt, and oils. But if it be suffered to run through the floor, it is entirely lost."

The stale should be conveyed through the floor into the cellar, or if there be none let it pass, in constructed channels through the sides to the dung heap, or stercorary. Few cultivators appear to properly appreciate the value of liquid manure, and of course the advantages which result from making arrangements for saving and making the most of it. We have frequently attempted to impress on our readers the importance of this attention; and, particularly, in the *N. E. Farmer*, vol. 1, p. 190. As many of our subscribers are not in possession of that number, we will reprint a passage or two from the page referred to:—

According to some writers and practical farmers, the value of the urine of cattle, if properly preserved and applied is greater than that of all the dung which the same animals would yield! A letter from Charles Alexander, near Prebles, in Scotland to Sir John Sinclair contains much valuable information on this subject. "This intelligent farmer had long been impressed with the great importance of the urine of cattle as a manure, he set about to discover by a long and well-conducted series of experiments, the best method of collecting and applying it. He began by digging a pit contiguous to the feeding stall, but distinct altogether from that, which was appropriated for the reception of the dung. The dimensions of the pit, according to his own account, were thirty-six feet square and four feet deep, surrounded on all sides by a wall; and the solid contents were one hundred and ninety-two yards. Having selected the nearest spot where he could find loamy earth, and this he always took from the surface of some field under cul-

tivation, he proceeded to fill it; and found that with three men and two hours he could easily accomplish twenty-eight cubic yards per day; and the whole expense of transporting the earth did not exceed four pounds sixteen shillings [about twenty-two dollars.] When the work was complete, he levelled the surface of the heap in a line with the sewer which conducted the urine from the interior of the building, on purpose that it might be distributed with regularity, and might saturate the whole from top to bottom. The quantity to be conveyed to it he estimates at about eight hundred gallons; but as this calculation was founded partly on conjecture, for he measured not the liquor, it will be better and more instructive to furnish and proceed on DATA that are certain and incontrovertible. The liquid manure was supplied by fourteen cattle weighing about thirty-four stone [four hundred and seventy-six pounds] each, and kept there for five months on fodder and turnips. The contents of the pit produced two hundred and eighty-eight loads, allowing two cubic yards to be taken out in three carts; and he spread forty of these on each acre, so that his urine in five months, and from fourteen cattle produced a compost sufficient for the fertilization of seven acres of land. He states farther that he had tried the experiment for ten years, and had indiscriminately used in the same field, either the rotted cow-dung or the saturated earth; and in all stages of the crop, he had never been able to find any perceptible difference. But what is still more wonderful, he found his compost lasted in its effects as many years as his best putrescent manures; and he therefore, boldly avers that a load of each is of equivalent value."

We hope soon to resume this subject.

(From the New England Farmer.)

MR EDITOR— In the *Farmer* of 1835, you spoke of the use of Potash being less expensive than ashes as a manure, without mentioning the quantity of water, or how it is to be distributed, nor if it would be better in the Autumn or Spring. You will oblige those who are ignorant by any particulars you can give.

BY THE EDITOR.— The article alluded to was taken from the *New York Farmer*, and contains the following particulars, which we wish had been somewhat more definite:

"I had a lot of meadow lands containing about three acres, which had been reduced to poverty by severe cropping. On this piece of ground I made the following experiment. Having broken up the sward, and harrowed it repeatedly until quite mellow, I spread leached ashes over one acre, and potash dissolved in water on two other acres; sowed millet seed, clover and timothy all mixed together in the proportion of one part of each of the latter to five of the former, and one bushel of the mixture to an acre; harrowed all in together on or about the first of the sixth month.

The ashes cost fifteen dollars, the potash five dollars

the acre; the expense and trouble of dressing with potash about in the same proportion. And now it was a matter of no small interest to me, a novice of farming, to observe the result of experiment, which when made I supposed to be entirely original. The crop of millet was fine, and as nearly alike as could have been expected, if the land had all been covered with the same kind of manure. The clover, also, all over the lot, was luxuriant, and gave the strongest evidence, to my mind, that potash is the principal agent in leached ashes, which causes the fertility. I made trial of potash in a lot of four acres, which was considered the poorest on my farm, on which I sowed millet with the potash. I sowed at the same time four other acres without any manure, on ground considered much better than the last above mentioned.

I cut double the quantity of hay from that dressed with potash, and of a better quality. Thus far my little experience goes in favor of potash as manure; but I much desire that some of thy subscribers, of longer experience, and abler pen would favor us with light on this interesting subject. T. D.

We would unite with the writer of the foregoing, in soliciting farther experiments on the topic, and are the more desirous that such trials should be made, as we do not find in our agricultural books, any mention of potash as a manure.

VALUABLE RECIPE.—Mr A. Bronsou, of Meadville, Pa, says, from fifteen years experience, he finds that an Indian meal poultice, covered over with young hyson tea, softened with hot water, and laid over burns and frozen flesh, as hot as it can be borne, will remove the pain in five minutes; that if blisters have not arisen before they will not after it is put on, and that one poultice is generally sufficient to effect a cure.

The New Silk Factory is to commence operations in Dedham this week. When in full operation it will run 1600 spindles, and employ 100 females.

PRESERVING WINTER APPLES.—Winter Apples may be preserved for summer use in a green state by putting them up as gathered from the tree, in barrels, filled with ground plaster, care being taken to prevent the apples from touching each other, because the plaster excludes the air and absorbs the moisture. This will not injure the fertilizing properties of the gypsum.

A mechanic of Paris, has lately invented a machine which he calls *voiture moulin*, destined to follow armies, and grind and bolt all kinds of corn. It is with two wheels, one horse, and is driven by a man who sits like a coachman, and can stop the mechanism at pleasure. The impelling force is the movement of the wheels. When it stops, however, it may be worked by the hand or by water. In action the whole day, it can grind two hectolitres and a half, with one man; five with two; and nine with a horse.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY

		FROM	TO
APPLES, new	barrel	2 25	4 00
BEANS, white,	bushel	1 75	2 25
BEEF, mess, new,	barrel	13 50	14 00
No. 1,	"	11 50	12 00
prime,	"	8 50	9 00
BEEFWAX, (American)	pound	26	29
CHEESE, new milk,	"	3	12
FEATHERS, northern, geese,	"		
southern, geese,	"	54	60
FLAX, American,	"		
FISH, Cod,	quintal	3 25	3 56
FLOUR, Genesee, cash	barrel	10 75	11 00
Baltimore, Howard street,	"	10 50	10 62
Baltimore, wharf,	"	10 00	10 25
Alexandria,	"	10 25	10 50
GRAIN, Corn, northern yellow	bushel	1 10	1 12
southern flat yellow	"	1 13	1 03
white,	"	1 00	1 05
Rye, northern,	"	1 15	1 20
Barley,	"		
Oats, northern, (prime)	"	60	65
HAY, best English, per ton of 2000 lbs		25 00	28 50
best English, new	"	22 50	26 50
hard pressed,	"	20 00	22 00
HONEY,	gallon	45	50
HOPS, 1st quality new	pound	9	10
2d quality	"	7	9
LARD, Boston, 1st sort,	"	16	17
southern, 1st sort,	"	15	16
LEATHER, Philadelphia city tannage,	"	23	30
do country do	"	24	26
Baltimore city do	"	25	23
do, dry hide	"	19	22
New York red, light,	"	20	21
Boston do, slaughter,	"	19	21
do light,	"		21
LIME, best sort,	cask	1 15	1 20
MACKEREL, No 1, new,	barrel	9 00	9 50
PLASTER PARIS, per ton of 2200 lbs.	cask	2 75	3 00
PORK, Mass. inspect extra clear,	barrel	28 00	29 50
clear from other States	"	25 00	26 00
bone, middlings, scarce,	"		
SEEDS, Herd's Grass,	bushel	3 00	3 12
Red Top,	"	75	1 00
Hemp,	"	2 75	3 00
Red Clover, northern,	pound	13	14
Southern Clover,	"	10	11
SILK COCOONS, (American)	bushel	3 00	4 50
TALLOW, tried,	lb.	9	10
Wool, prime, or Saxony Fleeces,	pound	70	75
American, full blood, washed,	"	60	79
do. 3-lths do.	"	60	65
do. 1-2 do.	"	50	58
do. 1-4 and common	"	45	55
Northern pulled, { Pulled superfine,	"	60	65
{ 1st Lambs,	"	55	60
{ 2d do.	"	45	48
{ 3d do.	"	30	35
Southern pulled wool is generally 5 ets. less per lb			

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	11	15
southern, and western,	"	13	14
PORK, whole hogs,	"	10	11
POULTRY, chickens per pair,	"	75	1 00
BUTTER, (tub)	"	23	26
lump	"	28	30
EGGS,	dozen	28	30
POTATOES, new,	bushel	50	1 00
CHEESE,	barrel		

PLUM TREES, GRAPE VINES, &c.

500 Plum Trees of the most approved kinds, and extra size.
200 Quince Trees, of good size.
1000 Isabella Grapes.
100 Catawba and Pond's Seedling, Bland's and Perry, extra size.

Black Hamburg, Sweet Water, Chasselas, &c.
10,000 Giant Asparagus.

10,000 Wilmot's Early Rhubarb or Pie Plant, lately introduced.

And a good assortment of Gooseberries and Roses of different kinds. Orders left at this office, or with the subscriber at Cambridgeport, will be attended to promptly.

Oct. 5. 2m SAMUEL POND.

NEW WORK ON SILK.

Just published and received "The Silk Raiser's Manual, or the Art of Rearing and Feeding Silk Worms, and the Cultivation of the Mulberry Tree. Translated from the French." Price 50 cts. For sale at the New England Seed Store, 51 and 52 North Market Street

Oct. 26. JOSEPH BRECK & CO.

WANTED.

A small Farm, twenty to forty miles from Boston, with good House and Barn. Possession to be had in March next. Any person having one for sale is requested to describe land and buildings, stating terms of payment &c. Address (post paid) I. D. B. at the office of the N. E. Farmer.

Oct. 5. 4t

AGRICULTURAL BOOKS.

Farmer's Library in 3 volumes, consisting of the American Gardener, by Thos. G. Fessenden, the American Orchardist, by William Kenrick, and the Complete Farmer, by Thos. G. Fessenden. These are bound to match, at \$3 for the set, or will be sold separately for \$1 each volume.

Ruffin's Essay on Calcareous Manure, 1,00.

Chaptal's Agricultural Chemistry, new edition, a work of great value, price 1,25.

The American Farmer, price 75 cts.

Mrs Child's Frugal Housewife, 50 cts.

Kenrick's American Silk Grower's Guide, 42 cts.

Cobb's Silk Manual, 50 cts.

Comstock's do. 50 cts.

Forsyth on Fruit Trees.

M'Mahon's American Gardener.

Louison's Complete Works.

And will be supplied to order any work upon subjects connected with Agriculture, Horticulture and Rural Economy.
June 22.

RAW SILK AND SILK COCOONS.

The Atlantic Silk Company at Nantucket will pay cash and the highest prices for any quantity of American Reeled Silk. The price will be regulated according to the quality and the manner in which it is reeled. This Company will also contract to pay cash and the highest price for any quantity of Silk Cocoons raised the present year. Believing that it would be decidedly for the interest of cultivators that the price of cocoons should be regulated by the quantity and quality of the silk which can be reeled from them, they propose to receive and reel them, and allow the highest price for the silk which they will afford, in preference to purchasing them by the bushel; as by the mode proposed, the cultivator will realize all which they can possibly be made to produce. Where this course is objected to they will purchase them as they are usually sold, by the bushel; in which case the price will vary according to the quality, age, mode of packing, dampness, &c.

It is the intention of this Company at all times to offer every encouragement to silk cultivators by paying cash and liberal prices for Raw Silk and Silk Cocoons in any quantities, to be delivered at Nantucket, or at the Seed Store connected with the New England Farmer, No. 52 North Market street, Boston. Communications on the subject may be addressed to

W. M. H. GARDNER,
President Atlantic Silk Company.

Nantucket, (Mass.) Sept. 7, 1836. 3m

SUPERIOR POTATOES.

For sale on board the schooner Splendid, at the T wharf, 100 barrels of very superior Nova Scotia Potatoes, at \$2 25 per barrel. Nov. 2.

FRENCH SUGAR BEET.

We have just received a fresh lot of French Sugar Beet of this year's growth. The cultivation of the Beet for the manufacture of sugar, is exciting the attention of farmers generally throughout the country, and bids fair to be one of the most important branches of domestic industry. Sandy soils formed by alluvions and deposits of rivers are very favorable to the growth of beets; but the best soils for the purpose are those that have the greatest depth of vegetable mould. The produce from an acre is very great. Two and a half pounds is requisite to seed an acre. The seed may be sown broadcast, or in drills. We confidently recommend the article here offered. It is pure and of the right kind, selected with great care from imported roots. For sale at the New England Seed Store, by
Nov. 9. JOSEPH BRECK & CO.

LINSEED OIL MEAL.

The subscribers are now ready to supply Farmers and Stable Keepers with the above superior article for feeding horses, cattle and swine the quality and cheapness of which has been fully tested by farmers in the vicinity, and stable keepers in the city, to whom reference will be given.

The Linseed Oil Meal is used generally as a substitute for corn meal, and is mixed with bran, or any other food having little nourishment, or with cut hay and bran for horses; and is believed to be as cheap food as corn meal at seventyfive cents per bushel.

The price of the above is thirty dollars per ton delivered at the mill in Medford, thirtytwo dollars in Boston. Apply at No. 10 Commercial wharf, or in Medford at the mill.

Nov. 23. GEO. L. STEARNS & CO.

MORUS MULTICAULIS SEED.

The subscriber, as agent for Samuel Whitmarsh, offers for sale the seed of the genuine MORUS MULTICAULIS, raised in France the present year, and selected especially for Mr Whitmarsh. It will be sold in ounce papers at five dollars per pa. cr. All orders, post-paid, directed to the subscriber, Northampton, Mass. will be only attended to. Also expected soon from abroad a quantity of the Chinese Mulberry Seed of this year's growth, similar to that imported last spring by Mr Whitmarsh, for which orders may be given.

C. P. HUNTINGTON, Agent.

Northampton, Nov. 23.

COCOONS WANTED.

Adam Brooks, South Scituate, will pay \$4 per bushel for cocoons (of the first quality) raised the present year—the cocoons must be stripped of the boss, and the chrysalis killed, either by steaming or by camphorated spirits; they must be dried immediately after, in the sun, until they are perfectly dry and will rattle by shaking, and carefully packed in dry boxes; not pressed but shaken down—to be delivered at Adam Brooks's, South Scituate, Mass, or to J. R. Newell, No. 52 North Market street, Bos'on.

Thomas G. Fessenden, Editor of the New England Farmer, has for sale a valuable apparatus for killing the chrysalis and also well fitted for heating the water to reel the cocoons, and useful for many other purposes—it is so cheap it is within the power of almost any one to obtain.

Instructions for spinning silk from the cocoons into warp and filling, sewing silk, and knitting silk—and dressing of the same—and receipts for coloring, are given by Adam Brooks on reasonable terms. Communications (post paid) may be addressed to ADAM BROOKS, South Scituate, Mass. Aug. 10.

WANTED.

To hire within five miles of the city of Boston, a good Farm, on a lease of five or ten years, containing from thirty to one hundred acres. Any person having such a place to let may hear of a tenant by addressing a letter to Isaac Wentworth, Dorchester, describing its situation and terms. Nov. 16.

FESSENDEN'S

SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture and Rural Economy.

VOL. II.

BOSTON, DECEMBER, 1836.

NO. 8.

PUBLISHED MONTHLY BY

JOSEPH BRECK & CO.

51 & 52 North Market St., at the N. E. Farmer Office.

T. G. FESSENDEN, EDITOR.

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BOSTON, DECEMBER, 1836.

IMPROVED SILK MACHINE. — We are gratified to learn that the writer of the following letter has succeeded in perfecting his manufacture of train, organize and sewing silk. During the short visit he made us last summer, described the machine he had invented and used, and the improvements of which it was susceptible, and left no doubt on our mind of its being a valuable invention, both for the silk grower and manufacturer. Not having seen it, however, we cannot speak of its merits with that confidence which we might after a careful examination, but judging from the inclosed specimen of sewing silk, and the well known inventive genius of Mr Botsford, we do not hesitate to recommend to our silk friends to give it a trial. We hope the several County Societies will furnish themselves with one of these machines as soon as they can be procured; for if it proves to be a valuable invention, they can afford Mr B. much aid in introducing it to general use, a duty which we shall owe him, and we trust be ready to discharge.

ROXBURY, Ct. Oct. 15, 1836.

MR. COMSTOCK — Sir: Since I saw you I have made considerable improvements in my machine for manufacturing silk. It now takes it from the cocoon and prepares it for the loom, or converts it into sewing silk, in the easiest possible man-

ner. As a proof, I enclose you one skein with this communication, for your inspection. My patent right I expect is secure, and I shall be able to supply orders for the machinery next season. Its great superiority over all other machinery, known to me, consists in this: it places the silk from the cocoon directly on the spool, and from the spool is converted into sewings, or prepared for the loom, with great perfection, facility and despatch. It will come out under the name of the Silk Reeling, Doubling and Spinning Machine. In regard to its being simple and important to silk growers, I will pledge myself to take any person of common ingenuity, and instruct him in one day, so that with the directions for using the machine, and a little of his own experience, he will be able, in a short time, to make sewing silk that shall equal the best Italian.

Another important qualification is, it prevents all waste. I presume that one hundred persons employed in a factory would not waste one pound in as many weeks. It is calculated for any number of spindles, from the small hand machine of six, to the most extensive manufacturing establishment.

ISAAC G. BOTSFORD.

Silk Culturist.]

APPLE MOLASSES.

BY TRY AND SEE.

Brother farmers, will you listen to me a few minutes, while I tell you how to provide yourself with a first rate article, and one of prime necessity. You are probably in something of a haste, though I hope you have your potatoes dug and safe in your cellar, for there are many things a farmer has to do to be ready for winter. It is just about election time also, and every farmer should manage so as to be able to drop in at the poll and give his vote for a good man and true; but do not do, as many will, make the privilege of voting an

excuse for spending a whole day at the tavern, imbibing "wet damnation."

If you are a married man, as I hope you are, for no other one has consistent claim to the character of a good citizen, you know, or if you do not, your wife does, that it costs no trifling sum to provide sweetening for the family, while there is no possibility of living without it; and experience has fully shown me, that for many of the purposes of domestic cookery, Apple Molasses is far preferable to West India, while it is at the same time much cheaper.

I make little cider; my apples are worth more fed to my hogs than for cider; but I make a practice of selecting my best sweet apples, those that furnish the richest, heaviest liquor, and making a cheese from them, using the cider thus obtained for making apple or quince preserves, boiling down for molasses, and keeping two or three barrels for drink, or ultimate conversion into vinegar. When new from the press, and before fermentation commences, that which I intend for boiling is brought to the house, and boiled in brass to the proper consistence; taking care not to burn it, as that gives the molasses a disagreeable flavor, and taking off the scum that rises during the process. The quantity to be boiled, or the number of barrels of cider required to make one of molasses, will depend greatly on the kind of apples used, and the richness of the new liquor. — Four, or four and a half, are generally sufficient, but when care is not used in making the selection of apples, five barrels may sometimes be necessary; but let it take more or less, enough must be used to make the molasses, when cold, as thick as the best West India. When boiled sufficiently, it should be turned into vessels to cool, and from them transferred to a new sweet barrel, put into a cool cellar, where it will keep without trouble, and be ready for use at all times.

Molasses made in this way will be pure, and possess a vinuous or rather brandied flavor, which makes it far superior to the West India for mince, apple or tart pies, though where the apples used are very sour, a small quantity of imported molasses may be advantageously used. It is also excellent for making beer in the summer, giving it a briskness and flavor which common molasses will not; in short, there are but few uses to which molasses is applied, in which it will not be found equal or superior to the other. Its cheapness should also be a decided recommendation with the farmer. The cider from which I manufacture my molasses, is worth at the press a dollar a barrel, and it is worth a dollar to reduce it to molasses, thus making the cost of a barrel of molasses, allowing four and a half barrels of cider to be used, four dollars and fifty cents. The price of common molasses will average about

fifty cents a gallon, or sixteen dollars a barrel, making a saving to the farmer in the use of apple molasses, of about ten dollars per barrel. — *Genesee Farmer.*

SUBSTITUTE FOR STEAM LOCOMOTIVES. — Mr Emmons of New Jersey, is about trying a locomotive to be moved by springs, instead of steam power. The machinery is all arranged, and the experiment is to be made during the next week.

We have observed the above paragraph in several of the papers. It is melancholy to see such a waste of labor and ingenuity, in a vain attempt to produce an effect, which would be obviously at variance with the well known laws of nature. It must be manifest to any person of reflection, that locomotion cannot be produced without power, and that power cannot be produced by springs. They may be made, as in the case of a clock or watch, to produce a continued motion, arising from the power applied in winding up the spring, but they do not create any power. A locomotive furnished with springs, may in the same way be made to act, for a short distance, by the reaction of springs previously wound up, but with no greater power than that necessarily applied in winding it up. There can therefore be nothing gained to the efficiency of the engine, by the application of the springs, as the power required to prepare them to produce motion, would be more effectually applied to the turning of a crank, or more directly to the shoving the car. — *Boston Adv.*

SWEET APPLES. — Since the farmers of this vicinity have turned their attention to apples as food for cattle, sheep and hogs, and as an article of domestic cookery, they have found that there is a deficiency of sweet apples in their orchards. When cider was much in demand, comparatively little attention was paid to the kind of apple cultivated. A few choice winter kinds, as the Russets, Baldwin's and Greening's were procured, and the remainder were generally seedlings, perhaps good and perhaps bad, no matter which, if they would only make cider.

Paine Wingate, of Hallowell, who perhaps has as good an orchard as any in this vicinity, if it be not so large, and who has paid much attention to the variety of fruits, has favored us with some fine specimens of sweet apples of a variety well worth propagating. Among them were the Hearth Sweeting, an apple which keeps well during the winter and into summer. Hoyt's Sweeting, an apple of very tender pulp — Smith's Sweeting, a large variety — the Franklin Sweeting, which is a large and well known variety. Mr Wingate observes that some of his trees bear every year, but that the flavor of those apples are not so good, as the same variety that do not bear but every other year.

The scarcity of bread-stuff, and of forage, &c., has learned our farmers the value of apples as an article of food for man and beast. Very little cider is now made in this neighborhood, but the apples are given to swine and to the cattle, and used on the table — and indeed we find from actual experiment, that baked sweet apples and milk is far more palatable and nutritious to an Editor, than “saw dust pudding.”— *Maine Far.*

BRIEF HINTS FOR WINTER.—Cattle and all domestic animals should commence the winter in good condition.

Do not undertake to winter more cattle than you have abundant means of providing for.

Let every farmer aim to have next spring, instead of thin, bony, slab-sided, shaggy cattle, fine, smooth, round and healthy ones, and to this end let him spare no pains; and

1st, let the cattle be *well fed.*

2d, let them be fed *regularly.*

3d, let them be properly *sheltered* from the pelting storm.

Proper food and regularity of feeding will save the flesh on the animal's back, and shelter will save the fodder.

All domestic animals in considerable numbers should be divided into parcels and separated from each other in order that the weaker may not suffer from the domination of the stronger, nor the diseases from the vigorous.

Farmers who have raised root crops, (and all good farmers have doubtless done so,) should cut them up and mix them with drier food, as meal, chopped hay, straw or cornstalks, and feed them to cattle and sheep.

Cow-houses and cattle stables, should be kept very clean and well littered. To allow animals to lie down in the filth which is sometimes suffered to collect in stables, is perfectly insufferable. By using plenty of straw or litter, the consequent increase in the quantity of manure, will much more than repay the supposed waste of straw.

All stables should be properly ventilated.

Mixing food is generally better than feeding cattle on one substance alone.

Cattle will generally eat straw with as much readiness as hay if it is salted copiously, which may be done by sprinkling brine over it.

A great saving is made by cutting not only straw and cornstalks, but hay also.

Sheep, as well as all other domestic animals, should have a constant supply of good water during winter. They should also be properly sheltered from the storm, for the great point in the secret of keeping them in good condition, is to keep them comfortable.— *Genesee Far.*

ARSENIC.—*Danger of cleansing bottles with shot.* The following important caution has been published by Dr Murray, in a Leeds paper:— The case of poisoning by arsenic in Jersey, on the 21st of August last, owes its source to a most unwarrantable practice, and one that cannot be too much reprehended. It appears that the bottle of perry was fatal to one individual, and that three others suffered severely. This practice of cleansing bottles with shot is a most dangerous one; they are apt to adhere to the bottom. Shot is a compound of lead and arsenic — and both are eminently susceptible of chemical attack from the malic and nitric acids obtained in perry and cider. They will thus have in solution, highly poisonous salts of lead and arsenic. I had myself nearly fallen a victim to a glass of perry, and by analysis discovered the cause. The antidote must be two-fold. A weak solution of sulphate of magnesia or Epsom salts, would neutralize the lead, by forming an insoluble sulphate. Peroxyde of iron, I can also state, is an effectual specific for arsenic.

COFFEE IMPROVED.—Cut chestnut meats into pieces about the size of coffee grains, roast and grind them with the coffee in equal proportions, and the drink will altogether be better than ordinary coffee. A black powder in now sold in Paris, under the name of “Coffee Flowers, imported from America,” a pinch of which imparts to the coffee a very agreeable flavor. This is found to be sugar almost entirely charred. Caramel produces the same effects.

CARROT PIES.—Perhaps it is not known to all your readers, that carrots are so excellent substitutes for pumpkins or squash in making pies. As the latter articles are rather scarce this season, I have used the former, which I find answers very well. The carrots should be stewed (or boiled) and prepared in every respect as squash is, and the pies will be equally as good, and many think preferable.— *Bangor Far.*

HUGE PUMPKINS.—A single Pumpkin Vine, raised on the farm of Mr Wetheril, near Frankfort, Pa., produced pumpkins to the amount of seven hundred pounds! One of them measured seven feet four inches in circumference and weighed upwards of two hundred pounds! It will puzzle our Yankee farmers to beat this.

FREEZING.—A young man in this town froze his foot, which was perfectly cured in less than 24 hours, by the application of a poultice made of yeast and Indian meal — it is equally beneficial when applied to a burn.

MASSACHUSETTS AGRICULTURAL SOCIETY.

Report on the Manufacture of Beet Root Sugar.

—The Committee of the Massachusetts Agricultural Society, to whom was referred sundry papers, estimates, and documents, kindly furnished by Mr Isnard, Consul of France, wherewith it is proposed to the Society, as a matter of utility, to engage in a project, or undertaking, for the manufacture of Beet Sugar, after a careful perusal of the same, by which they have been much gratified, are constrained to report, that it would not be expedient for the Society so to do. For which they assign the following reasons. First, the Society have not the means to embark a capital to the extent of \$50,000, however promising it might be, nor would it be consistent with its rules of action, to enter into any copartnership or participation of profits of such a nature — this project holding out advantages more suited indeed for private enterprise, and to which the Committee would be gratified to see attention turned. Secondly, the advantages contemplated by the founders of the Society, and those who have contributed to its means, have been and still are, to give encouragement to a great variety of objects, constituting the production of the soil, both animal and vegetable — the effecting an improvement of the various Implements of Agriculture, the exciting, and rewarding, skill in manufactures, more particularly those of Domestic or Household Industry, and the various kindred arts. The Committee are of the opinion further, that great advantages would be derived, if the means to aid all these objects were to a greater extent. It must be obvious, that any such diversion of so large an amount to a particular object of culture, would be deemed partial, and might prove injurious to the general objects of the Society. Thirdly, the Committee, in reasoning on the subject, have rather avoided speaking of the want of authority to effect any such engagement, which alone, in the opinion of the same, would preclude the appropriation of such capital. The Committee are not insensible of the importance of this manufacture, as carried on in Europe, and in course of experiment in some parts of the United States, although they have some doubts whether the culture would not be better maintained in some other parts of our country. Yet that an inducement might be had, to a fair and speedy trial, the Committee recommend, that a premium of one hundred dollars, each year, be offered for the greatest quantity of Beets, raised on at least two acres of ground, and manufactured into Sugar in the years 1837, 1838, and 1839. The person raising the same, and having them manufactured, giving a full and particular account of the process for publication. All of which is submitted.

By order of the Committee,

JOHN WELLES, Chairman.

TANNING.

A few years since we alluded in general terms to a new mode of tanning, lately invented by Dr E. S. Bell and Mr Daniel Bell, of Virginia. From one of the Patentees, now in this place, we have been informed that the system has been well received, and the leather has well sustained the test of use. Some have supposed that this operation is effected by the use of heat, acid steam, &c.; this, however we are assured is not true, the leading principle being to free the hide from all foreign substances, as grease, &c., together with the weakened liquor from which the *tannin* has been absorbed, and thus leave the hide free to receive a fresh charge of the tanning principle, which being unobstructed in its operation by grease or other foreign substance, is left free to act immediately upon the gelatine of the hide; and very soon the tannin having combined with the hide, the weakened liquor may be again made to give way to a fresh change of stronger. The operation of freeing the hide from these foreign and detrimental substances, is effected by mechanical pressure, by means of rollers passing over the hides when drawn from the vats and laid upon platforms adapted for the purpose. In order to effect this compression conveniently the vats and platform are so arranged as to enable the workmen to pass them through the operation with great facility and ease. In order too, that the ooze may act as freely as possible, the hides are suspended in the vats, which adds likewise to the convenience of passing them successfully under the roller.

While the steaming and heating process which had been heretofore proposed, and in some instances reduced to practice, injures the leather, by cooking it so as to make it harsh and unfit for use, we can see nothing in the above calculated to produce that effect; and we are assured that the process differs from all that can now be found in the patent office or in practice. We learn also, that a more perfect union, appears to take place between the material of the hide and the tannin, than under the old method, which has been proved by submitting the action of chemical agents. The time necessary for the perfect tanning of a hide varies from two to eight weeks, as has been proved by repeated experiment; it is then at the option of the tanner to permit it to lie longer or to finish it immediately for sale.

We have not attempted to detail the plan of these gentlemen, or even to allude to many parts of their process; we only desire to call the attention of tanners and others interested, to the fact that good leather may be made by a much shorter process than some have thought practicable; and to impress the distinction between tanning by steam and the mode here proposed. We know there is a mountain of prejudice against innova-

tion to be overcome, but whilst improvements are being made in every branch of business, why should this important operation remain stationary? Here is a plan proposed by which labor is to be saved — time to be saved, (and time is money, especially to the man of small capital) — a good article is to be produced — and the experiment is not expensive. It is surely worth an attentive investigation; and the patentees say they ask no more. If they cannot effect all that they propose, they ask no man to adopt their system. Mr Daniel Bell will remain in Zanesville a few days, and will give full satisfaction on the subject; and at any time a letter addressed to Dr Edward S. Bell, Middleway, Jefferson county, Va. will receive prompt attention.

We are requested to say that the patentees hope editors will give such notice of their plan as they think proper. — *Zanesville Gaz.*

The following is the best recipe I have ever seen tried for the *bots* or *grubs*. I think it was once published in either the *American Farmer* or *Turf Register*.

Drench with a pint of sweet milk and a pint of molasses; if no relief in 30 minutes, repeat the dose two hours after with a quart of strong salt and water — two hours after with a pint of linseed oil.

The grubs fill themselves with molasses, their skins then become thin, the salt and water cuts them to pieces, and the oil carries them off, and heals the wound inflicted by the grubs. For common cholick, bleeding in the mouth, and a purge of salt and water.

From two to three ounces of tincture of assafoetida, diluted with a pint and a half of water, will nine times out of ten, produce instant relief. — *Southern paper.*

CHAPPED HANDS.—There is not a more common or a more troublesome complaint in the winter season, especially with females, than chapped hands. It is rather remarkable, that few individuals seem to know the true cause of this affection. Most people attribute it to the use of hard water, and insist upon washing, on all occasions, with rain or brook water. Now the truth is, that chapped hands are invariably occasioned by the injudicious use of soap; and the soap affects them more in the winter than in the summer, because in the former season the hands are not moistened with perspiration, which counteracts the alkaline effects of the soap. There is a small portion of alkali in hard water, but not so much as there is in soft water with the addition of soap. The constant use of soap in washing, even though the softest water be used, will cause tender hands to be chapped, unless some material be afterwards used to

neutralize its alkaline properties. In summer, the oily property of the perspirable moisture answers this purpose; but in the winter, a very little vinegar or cream will, by being rubbed on the dried hands, after the use of soap, completely neutralize its alkaline properties, and thereby effectually prevent the chapping of hands. Any other acid or oily substances will answer the same purpose. There are some very delicate hands which are never chapped. This exemption from the complaint arises from the greater abundance of perspirable matter which anoints and softens the skin. Dry and cold hands are most afflicted with this complaint. — *Bost. Post.*

We have seen the following in several newspapers, and though we cannot vouch for its efficacy, from experience, we would advise its trial in case of need.

CURE FOR THE TOOTH ACHES.—It is with great pleasure we announce to our readers, that we are in possession of one of the greatest desiderata in the whole materia medica. The remedy is simple, easily procured, easily applied, and effectual. We do not speak unadvisedly, for we have tried it upon our own masticators, and those of our family, and some half a dozen of our friends, and we are therefore enabled to speak with confidence and safety. The recipe is as follows: take a lump of unslacked lime about the size of a hickory nut, and dissolve or slack it in two-thirds, or three quarters of a tumbler of water. Hold the lime water in the mouth contiguous to the aching tooth, and certain relief will ensue. We never knew it to fail. If the relief is not permanent, repeat the application as often as the pain returns. If the pain is stubborn and refuses to yield, the lime water may be made thicker and stronger.

BUCKWHEAT STRAW.—A correspondent, who signs himself "A Young Farmer," asks us whether any use can be made of his Buckwheat straw? Our reply is, that it is better for milch-cows than the best timothy hay — that his cows will eat with equal avidity, — that if it has not been exposed too long to the vicissitudes of the weather it will prove equally nutritious to them — that so far as the secretion of milk is concerned it is infinitely preferable to any hay or fodder within our knowledge, and that when cut and boiled, or steamed, it makes most acceptable sloop for the cows. We will say further, that the "old plan" of throwing this wholesome and nutritious provender upon the dung-heap, or in the barn-yard, to be trampled under foot, should be abandoned, and that henceforth it should be permitted to assume its proper rank among the choicest hay for neat cattle. — *Baltimore Farmer.*

ANTIDOTE TO POISONS. — The fact that Ground Mustard proves a sure remedy in all cases where vegetable, and in nearly all where mineral poisons are taken into the stomach either by mistake or design, if given immediately after such deleterious substances have been received, is a circumstance that should be universally known.

We are led to make these remarks in consequence of two cases of accidental poisoning having come under our observation within the last four weeks: one from Oxalic Acid, the other from Nitrate of Potash; in both cases they were taken, supposing them to be Sulphate of Magnesia, or "Salts." The former did its deadly office, by reason of its victim's living at a distance from medical aid, and being ignorant of the fact that ground mustard, taken in a dose of a table spoonful, mixed in water, is an instantaneous and powerful emetic; the other one availed himself of this remedy upon the spur of the moment, and no ill effects from the poison have since arisen.— *Bunker Hill Aurora.*

[From the Mechanic & Farmer.]

Manufacturing Oats into Bread Stuffs.

MR. SAYWARD: — Believing that you are strongly inclined to the interest of the Agriculturist in this section of the country, I therefore, through the medium of your valuable paper, offer a few hints to my brother farmers on the objects and advantages of raising and manufacturing Oats into bread stuff. The cause of my writing this article at this time is, that a considerable number of my friends and neighbors are making preparations to move to the far West, because, they say, "we can't raise no corn." Now, sir, it is my firm conviction, that the region in this latitude is not adapted to the culture of corn. This, every man of moderate understanding does, or ought to know. But, sir, one thing is certain — we can raise a plenty of good potatoes, and get as much for them per bushel, in our cellars, as can be got for a bushel of corn, in their barns, in either Ohio, Indiana, Illinois, or Missouri. We are positive that we can raise good crops of wheat, and that this section of the country is excellent for the culture of that article. A friend of mine, who I can believe, told me yesterday, that he has this season raised, after two bushels sowing, sixty bushels of good wheat. I myself had, last year, over 46 bushels after two bushels sowing, on burnt land; this year I cannot tell how much will be the increase, not having threshed any this season — but it looks well. We have in this section, generally, good health, caused, no doubt, by a pure atmosphere, and good wells of water — which no writer of any candor has ever stated (to my knowledge) is possessed by the settlers who go from New Eng-

land to the West: there they have the bilious fever and ague, to an alarming extent. Besides, if they would only consider the high prices they would have to pay for sheetings, shirtings, calicoes, and cloths of all kinds — not to mention teas, spices, and other luxuries, which the people of New England have been accustomed to, from their childhood — I think they would be more content with their present situation.

Now, Mr Editor, if we should substitute Oats for corn, by sowing them in season, (not sow them in the middle of June, as some do,) that they may be filled — then husband them, as we would wheat — carry them to mill, and have them floured — I will be bound in that case there never will be such a cry for want of bread stuffs as has been heard the past year, in the County of Penobscot. This county is as well adapted to the culture of oats as Scotland, my native country, where the staple bread stuff is oat-meal; and if the people would once get into the way of using it, they would prefer it to brown bread, being sweeter and equally as substantial. The flouring of oats is much practiced in some parts of Vermont, Rygate and Barret; they carry them to Dover and Great Falls, N. H., and to Lowell and Boston, Mass.

It must be observed that an oat-meal mill must be built, or rather fixed on purpose for them — besides, there must be attached to the mill, a kiln, for the drying of them before they are ground.

If these hints meet the eye of any brother farmer who may appreciate them, I shall be glad to discuss the subject more at length.

Bradford, Sept. 1836.

JOHN PENDER.

AGRICULTURE.

We observe with astonishment and regret the conclusive evidence which appears in every direction that the business of agriculture does not receive the attention due to it in this country, but is treated with absolute neglect, compared with other pursuits. This ought not to be, and the inhabitants of this country will yet learn that they have committed a gross error by abandoning the cultivation of the soil for less independent and more precarious modes of obtaining a livelihood.

Who has ever before heard of such a state of things as now exists here? We have a soil as fertile as any that the sun ever shone upon, a country almost boundless in extent, and land so cheap that any man may purchase a farm with the proceeds of a few month's labor, yet we are actually importing for consumption, immense quantities of agricultural products from foreign countries! A people thinly scattered over a land unequalled in fertility and exhaustless in its resources, are buying their bread at enormous prices from countries so overburthened with inhabitants that political economists have feared that the earth

would fail to produce sufficient to support them. Such an extraordinary and unnatural circumstance should excite attention and awaken the inquiry as to its cause.

The fault as we have seen, is not in the soil; nor is the country overrun with inhabitants. It is therefore evident that the *cultivation* of the soil is neglected, otherwise we should be exporting instead of importing agricultural products. But it is easier to shew the fact, that agriculture is neglected, than to find a sufficient reason for such neglect. We apprehend, however, that it will be found to spring in a great measure from the same causes which have produced much evil in this country and the bitter fruits of which we are now reaping. The first and chief of these causes is the inordinate thirst for wealth which pervades every class of society, and induces men to abandon their legitimate business to engage in some wild hazardous speculation with the hope of becoming suddenly rich. It is also too often the case that the farmer becomes tired of the moderate and gradual accumulation of property by the products of his land, and leaves the cultivation of it to engage in the business of commerce or manufactures. He finds out his egregious mistake when it is too late. The property he had accumulated is often squandered and lost in consequence of his ignorance of new business, and he again sighs for the cheerful and independent mode of life which he has abandoned, when it is out of his power to resume it. We have in our mind numberless instances of this kind, where industrious and prosperous farmers have been lured to their ruin by being induced to lay aside the implements of husbandry, and engage in the universal scramble after sudden wealth.

There is another great error prevalent upon this subject, and that is the business of agriculture is generally looked upon as less respectable than that of commerce, manufactures, or the professions; and wealthy farmers, instead of teaching their sons their own business, most usually transform them into merchants, lawyers, doctors or domineers. This is all wrong. Agriculture is the very backbone of all business, the main spring of all wealth, and should be regarded as a profession of the highest respectability. It gives those engaged in it a feeling of independence, genuine nobleness without ostentation, honor, honesty and firmness, well calculated to perpetuate the free institutions of our happy country. The truth of the eloquent panegyrics of the ancients upon this employment may be more easily realized here than in any other country upon earth. We confidently hope to see public opinion speedily righting itself upon this subject, and to find people seeking their permanent interests and advancing the prosperity and glory of our wide domain by engaging more gen-

erally in this healthful, honest and independent business. — *N. Y. Sun.*

HONEY.—In passing through the garden employed by the American Institute, our attention was directed to some boxes of Honey, of a clear white and beautiful transparent appearance, such as has seldom been seen in the New York market. It is presented by Messrs Wincox & Cone, of West Broomfield, Ontario County. One of the firm has furnished us with the following statements.—*N. Y. Gazette.*

“Last spring we had not far from 220 swarms, this fall we had 420; nearly all the young swarm are good to winter over. We have taken from our bees, 700 lbs. of box or cap honey; in addition to this, we furnished all in the vicinity where we live, with boxes, showing them how to manage, promising to buy all the honey that was built in them. This added to our own, made 5,651 lbs. All of this was taken away without destroying a single swarm of bees. Near seven-eighths of this honey, was of the white, such as is exhibited to-day; it arrived in New York market the ninth of September; near two-thirds of it is already sold. We have adopted this plan to make our bees profitable, and not destroy an insect that is such an example of industry.”

SPONTANEOUS COMBUSTION. — *Farmers, look out — take warning* — and be careful to have your Hay well cured, before you put it into your barns.

Mr Seth Root, of Otis, in this State, lost fifteen tons of good hay, by putting it into his barn too green, notwithstanding he had taken the precaution to give it a good sprinkling of salt.

For several days, Mr R. noticed his hay-mow to be gradually sinking at the centre, and was much perplexed to divine the cause — the last week having occasion to ascend it, to throw down some hay for his cattle — had taken off but a small quantity, when on a sudden a stream of flame, smoke and cinders burst upon him, that well near suffocated him, at the same time his feet gave way he found himself ingulphed to his shoulders in smoke and embers, from which situation he fortunately very soon extricated himself, rather singed, and gave the alarm of fire; his neighbors by timely exertion, extinguished the fire and saved his barn. The hay was put into the barn, the fore part of August, when ignition took place, and why no indication of the fire was sooner discovered, is left to the decision of the learned and curious.— *Hampden Whig.*

ECONOMY is the parent of integrity, of liberty and ease, the beautiful sister of temperance, of cheerfulness and health.

MANUFACTURE OF SILK IN CHINA.

MR ATWILL,— In your last number was a description of silk-growing in China, preparatory to the manufacture, into a great variety of beautiful fabrics which are so extensively used and worn in this and other countries. It is presumed that some description, detailing the mode of manufacture, and *how they do the thing* in China, would be acceptable to those who take an interest in the subject of silk culture. It is known that the Chinese exercise the most patient and laborious industry, with the most simple and rude instruments, to prepare the soil, cultivate the mulberry, feeding the worms and reeling the silk, wholly by hand labor; and yet they manufacture the most elegant and delicate fabrics, in a way equally simple, clumsy, and inapplicable,—and is thus described in the excellent and valuable “Practical Treatise on the Culture of Silk, by T. G. Comstock, Esq., Hartford, editor of the Silk Culturist,” who, on the manufacture of silk, says,— “In India the weaver weaves his web in the open air. He first selects a station for his operation, generally under a tree, that its foliage may protect him from the scorching rays of the sun. He then extends the threads, which compose the warp of his intended fabric, lengthwise, between two bamboo rollers, which are fastened to the ground by means of wooden pins. He then digs a hole in the earth large and deep enough to contain his legs in a sitting posture. He next attaches to a limb of the tree the cords by which his harness is to be operated, and the lower shafts of the harness, cords with loops of sufficient size to admit the insertion of his *great toes*. With his web thus arranged he is prepared to commence weaving. This he does by putting his toe into the loop of the cord attached to that part of the harness which he wishes to tread down, and then with the shuttle introduces the woof and beats up by striking the threads of the woof with the shuttle instead of a battese. The shuttle is in the form of a netting needle and longer than the breadth of the web. With this rude apparatus he manufactures a fabric, of which an Italian silk-weaver would be proud.

If the silk manufacture in China is so simple and so easily performed, can it not be successfully and profitably prosecuted in a country already abounding in machinists, with ingenuity to invent and skill to execute, the most perfect machinery in the world? — *Northampton Courier*.

(From the Maine Farmer.)

BUTTER.

MR HOLMES:— I saw in your paper of the 18th ult., a piece on Butter, in which the writer observes that as “she considers the butter which is offered for a premium, to be in a measure pub-

lic property, the public have a right to express their opinion upon it.” She wishes also to inquire “how their butter was made.” This inquiry we will cheerfully answer, so far as our own experience will enable us to. We can assure you that there is no mystery about it, and we do believe that there is no necessity of having such poor butter as we often see. It is easy and simple, but needs care and perseverance. Our experience teaches us that there is nothing so good for cows as a full supply of good grass and water—then, care should be taken to have them milked regularly, at stated hours night and morning, and the milk should not be allowed to remain fifteen or twenty minutes in the pail when milked, but should be strained as soon as possible into a perfectly clean, sweet and dry vessel, and should not be disturbed until skimmed for butter—but care should be taken that it does not stand too long, for if the milk or cream be allowed to become sour before it is churned, it cannot make pure butter. After it is churned it should be taken from the churn immediately, and salted with pure salt—(we are not particular what kind, if it is made fine and clean) and as much of the milk worked out as can be at that time—then it may stand about four and twenty hours, when it should be worked again and a little more salt added. It will be necessary to repeat this operation three or four times in order to separate the milk from it, which if allowed to remain will render it impure and give to it an unpleasant taste. We have been thus particular because this is the way we manage, and we believe it to be the best and easiest method for making good butter, and should be glad to have the friends of good butter give them a fair trial, and no longer conclude that there is any secret about it.

The writer also observes that “premiums have been awarded year after year, to the same individuals, or those connected with some of them.” We know that all butter which we have carried to the Cattle Show, has taken a premium, and are we to be found fault with for it? I have not been a stranger to such observations as these, before this time, and therefore withheld my butter one year from the Show, and was then complained to, and now think that I shall offer my butter for a premium whenever it is convenient, believing that others have an equal chance with myself.

This writer also inquires if “otter, carrot-juice or the yolk of hens-eggs add to the flavor or quality of butter.” We can give no information on that point, having never experienced the effect produced by using those articles. She also says that she “saw the first premium butter last year, and presumes to say that no cow ever made such butter without the aid of coloring matter.” We can here inform her of her mistake, for we made

the butter, (an can make oath of it) in the manner above described, and not the least particle of coloring matter added to it, and now she and all creation may know what they have a right to, and she has our sincere wishes that she may make trial and succeed.

From the Silk Culturist.

SILK INVESTIGATION.

We stated in our last number that Hon. Andrew T. Judson was appointed by the committee of Manufactures of the House of Representatives, to make a report on the present state of the culture and manufacture of Silk in the United States, and expressed our doubts of his attending to the subjects on account of his having resigned his seat in Congress and accepted the office of Judge of the district Court of this district. We have since had an interview with him, and are gratified to learn that he has decided on giving the subject a thorough investigation, and communicating the result to Congress at its next session.

For the purpose of collecting the facts, he has issued the following circular, a copy of which will be forwarded to Silk growers and manufactures as far as they are known, and it is hoped they will lose no time in answering the interrogatories and returning it, as it will require considerable time and labor, to draw up the report after the statistics are collected. Such gentlemen as are engaged in the business and do not receive a circular, will please impute it to their not being known, and communicate all the information in their possession, directed to Mr Judson.

As it is desirable that the committee should have all the facts in relation to the subject matter of their inquiry, all publishers of every newspaper in the United States would especially aid them, and promote the enterprise by copying the circular.

CANTERBURY, CONN. Sept. 18, 1836.

SIR: At the last session of Congress, the Committee on Manufactures were instructed by the House of Representatives, to inquire into the expediency of promoting the *growth* and manufacture of Silk in the U. S., and the business of the House of Representatives was such, that the Committee were unable to complete the contemplated investigations.

You will confer a favor on many of your fellow citizens, and no doubt, promote the great interest of the country, in this valuable and increasing branch of business, by filling up the enclosed blanks, with the result of your own knowledge, or inquiries, and returning the same to me at your earliest leisure.

You will also please to add any other suggestions, which you may deem important.

Your obedient servant,

ANDREW T. JUDSON.

1st. What number of the *Morus Multicaulis*, or Chinese Mulberry trees are growing in the —, of one year old, and under?

2d. What number of do. 2 years?

3d. " " 3 "

4th. " " 4 do and over?

5th. What number of Italian or white Mulberry Trees of one year old and under?

6th. What number of Italian or white Mulberry Trees of two years old?

7th. What number of Italian or white Mulberry Trees of three years old?

8th. What number of Italian or white Mulberry Trees of four years old?

9th. What number of Italian or white Mulberry Trees of five years old and over?

10th. What quantity of ground is now in use for the production of Silk?

11th. What quantity of ground is in preparation for the production of silk?

12th. What amount of silk has been raised in any one year previous to 1837?

13th. What amount, according to present appearances, will be an annual average crop hereafter?

14th. How many Silk Reels are in operation?

15th. " " Sewing Silk Machines?

16th. " " Silk Looms?

17th. What amount of sewing silk has been manufactured in any year?

18th. What amount of wove silk goods?

19th. What number of silk manufactories are established or projected?

20th. What quantity of goods it is expected they can manufacture per month?

21st. What kind of Goods?

22d. What number of individuals are turning their attention to Silk Growing and Manufacturing?

23d. What will be the probable amount invested in five years?

24th. In the experiments that have been made, has any thing appeared *uncongenial* in soil or climate either to the Worm or Tree?

25th. If this question is answered in the affirmative, has experience enabled the silk grower to overcome the difficulties?

27th. What number of Companies have been incorporated, and what is the aggregate amount of their capital?

EXHIBITION OF SILK GOODS.

A sort of fair was held at the establishment of the Atlantic Silk Company, in Nantucket, on Thursday and yesterday, which was visited by between two and three thousand persons — all of whom expressed their surprise and gratification at the perfection of the works, and the beauty of the products. Among the various articles offered for

inspection, we have only time to enumerate the following :

Raw Silk.—Samples of the kinds imported by Company from Bengal, Canton, Symrna, Naples, and Calabria respectively — some of the skeins measuring when opened, near thirty feet in circumference — the winding of which required the construction of reels especially for this purpose : Samples of American Silk, reeled in Wilmington, N. C., in Worcester County, Mass., at New Bedford by J. Rotch, Esq., and in Nantucket. The three latter specimens were decidedly the best, and indeed of a quality superior to any others exhibited.

Cocoons. — Specimens of different kinds — mostly produced in this state ; among which were noticed some which were perfectly white, others varying from a greenish yellow, to a deep orange color. One lot, very splendid, and of extraordinary size, from Rochester, Mass, attracted much notice, being probably the largest and best ever exhibited in the United States.

Cloths.— Samples of silk Cloths intended for handkerchiefs, woven in the gluten. These comprised specimens of the fabrics made in July last, being the Company's first attempt, and of those now in course of manufacture. The astonishing improvement made in the course of a few months, was obvious at a glance. White and Nankin colored Velveteens, of silk warp, and cotton filling, for Vestings, Pantaloons, &c. very stout, and displaying all the lustre and high finish of goods composed entirely of silk. Here was also a piece of handkerchief goods, sent hither from Spitalfield, England, as a specimen of the fabrics woven in that place by hand looms, from a certain quality of stock, a lot of which was imported at the same time : lying with it was a sample of the goods manufactured in this Mill by power looms, from precisely the same stock. The great difference in favor of the latter, excited the admiration of every observer.

Finished Goods.—These consisted mostly of silk Aprons and Handkerchiefs — the latter of almost every conceivable pattern, and varying from pure white, with a neat penciled border, to hues of great brilliancy — some comprising six or eight gorgeous colors and dazzling figures intermingled. These articles being on sale were rapidly bought up, most of the visitors feeling desirous to possess a memento of the early establishment of this important branch of industry upon our island. We noticed an eager preference for the white sort, which, unluckily, constituted but a small proportion of the whole number. Among the handkerchiefs were two placed in contrast — one woven in July, the other in October — showing a wonderful advancement in the art. Also, a beautiful handkerchief, woven by hand loom, the Silk of

which was raised, reeled, thrown and manufactured by Mrs. A. Brooks, of Scituate, Mass.; the whole machinery used in the several processes, we understand, having been made in the family of Mr B.

The above colored and stamped goods were all printed by the Boston and Lynn Printing and Dyeing Co., and were manufactured by the Atlantic Silk Co. The construction and operation of the manufacturing apparatus, the product of Mr Gay's inventive ingenuity, excited great interest. The medal awarded by the N. Y. Mechanic's Institute, was also presented for examination : it bears a characteristic device, and the following inscription : "Awarded to the Atlantic Silk Co. of Nantucket, for specimens of Silk and Silk Goods — Sept. 1836," — to which compliment, we doubt not, every wisher on this occasion will cheerfully render a favorable response.—*Nantucket Inq.*

BEEF SUGAR COMPANY.—On Thursday evening a meeting of the Company was holden at the Mansion House, for the purpose of ascertaining the quantity of seed wanted for the ensuing season.

Mr William Clark, Jr., Mr Hiram Ferry, and Mr Christopher Wright, were appointed a Committee to ascertain the quantity wanted in Northampton. As it is necessary to send Mr Isnard, the Agent of the Company to France, in the course of the present month, for all the seed wanted the next season, it is hoped that all the farmers in the valley of the Connecticut, who are expecting to raise the beet with the expectation of having it manufactured at Northampton, will without delay, send to the Post Office at Northampton the amount of seed they will want, and the requisite funds to purchase it.

The Company will take upon themselves the agency of purchasing the seed without cost to the farmers, to whom it is to be delivered, at the actual costs and charges, which are supposed to be about *twenty-five* cents per pound. Great care will be taken by Mr Isnard, who has full experience in the whole business, to select the best kind of beet seed which can be procured in France.

EDWARD CHURCH, Chairman.

S. WELLS, Jr. Secretary.

Northampton, Dec. 12, 1836.

IMPORTANT DISCOVERY.—During the last spring one of our merchants employed an English miner of practical experience, to examine the banks of the Upper Mississippi in pursuit of coal, and we are pleased to learn that his exertions have been crowned with success. After a tedious examination of the shores and banks on both sides of the river from the Rapids down to the mouth of the Missouri, an inexhaustible bank of coal was dis-

covered and effectually opened in Calhoun county, Illinois, ten miles above the mouth of the Illinois river, at the southernmost point or bend of the Mississippi, in a direct line, and about five miles from St. Charles, on the Missouri river; 26 miles from Alton, and but 50 miles from St. Louis by the river. The coal bed extends from one and a quarter to one and a half miles along the banks. Eight shafts have lately been opened, commencing with the first appearance of the strata to its extent with the line of the river, all of which were within two to four hundred yards of high water mark, and from sixty to seventy feet above the level of the river. The coal is bituminous, and of the finest quality; we should think superior to any discovered in this section of the country, and probably equal, if not superior to the Pittsburg or Brownsville, and in quantity inexhaustible. We are informed, that as soon as it was discovered, the gentlemen interested, purchased the whole line or extent of land bordering on the Mississippi, and is of opinion that in another season coal can be furnished at Alton and St. Louis for 6 or 8 cts. per bushel.—*Alton Tel.*

THE VALLEY RAILROAD.—It will be seen by the legislative journal, that a grant has been made of \$3000 for the survey of the Connecticut River Railroad through Vermont. It is given on condition that enough be raised in addition, by the citizens to complete the survey. It is much to be hoped, that no efforts will be spared to raise without delay, the necessary sum, and that we may see the survey actually completed early in the ensuing spring.—*Vt. Chronicle.*

The additional sum which will be required beyond the \$3000, cannot be great; and there is no doubt it will be raised promptly. The amount which would be required of this town is already subscribed. Enough is also pledged on the route to complete a survey from Hartford to the south line of the state. The whole route from Hartford to the Canada line will unquestionably be surveyed early in the ensuing season.—*Vt. Phoenix.*

STEBEN PRODUCTIONS.—Mr Finla McClure of this town, presented us a few weeks since half a dozen Ruta Bagas of his common growth, whose average weight exceeded 11 pounds each; and day before yesterday, Mr Samuel Legro sent us a head of his common production of Cabbages, which, after being cleanly stripped of the loose leaves, weighed 11 1-4 pounds, and measured 34 inches in circumference. These mammoth bounties of Providence come from the Democratic gardens of the backwoods, whence the thirty thousand majority of ripe testimonials of sound patriotism are sent into the Albany market this season.—*Steben Far. Adv.*

ANTI-CATTLE CHOKER.—Our worthy friend, Pain Wingate, has left in our office an instrument with the above title. It is what is *vulgarly* called a tarred rope, and we should call it a very useful and efficient instrument. There should be one in every neighborhood, for it is a fact that cattle are liable to get choked, the world over, and being choked, ought to be relieved by the aid of man. But why is a tarred rope better for this purpose, than a cordwood stick? For various reasons. It is sufficiently stiff to effect the business, nine times in ten, and at the same time has that kind of elasticity which will accommodate itself to a position or passage not entirely straight.

In order to make one, take a piece of tarred rope, say an inch in diameter, and six feet long. Untwist it three or four inches at the end and leave a tuft of it loose in order to make a kind of ball or swablike end—then wind around it a piece of canvass or cloth in order to make the surface smooth, and over this roll and wind some spun yarn tightly and smoothly. In cold weather this rope should be warmed a little before using, and in warm weather it is well to wet it. When about to use it, the tuft at the end should be tarred back, and this will make a soft but sufficiently solid ball, to fill the gullet when it is pushed down.—*Maine Farmer.*

LATHROP CORN.—Mr Hiram Clark of Southampton, received two ears of Lathrop corn last spring from a friend, which he planted on the 1st day of June. He harvested from them about five bushels, and found not a soft ear among the whole; whereas in two pieces in the immediate vicinity, and on equally early land of the common corn, he found but very little ripe. The common corn was planted about three weeks earlier, and he judged that it would have required four weeks more of ordinary Fall weather, to have brought it to the soundness of the Lathrop corn. Thus it appears that the latter will ripen from five to seven weeks the earliest. What I have seen has 12 or 14 rows to the ear, and about the size of that commonly called "*Tucket.*"

Is it not worthy the attention of the farmers these cold summers? — *Hampshire Rep.*

NEW USE OF AMMONIA.—Potatoes immersed for four or five days in ammoniated water, containing an ounce of the common liquid ammonia to a pint of water, they will, on removal be found to have their vegetative principle greatly checked, or altogether destroyed, so that they may be preserved throughout the year. The application does not injure the flavor of the potatoes, but rather improves the inferior kinds, rendering them more mealy. They should be spread to dry in an airy situation after being immersed. The expense of this preparation is trifling.—*Silk Cul.*

From the Northampton Courier,

ELEGANT CHINESE PAINTINGS.

A gentleman who has long been engaged in the Canton trade, often visited that city, and had opportunities to become acquainted with the manners and habits of Chinese, has lately visited Northampton to become acquainted with the state of the silk culture here, from whose scrutinising observations made in China, much valuable information has been obtained. The same gentleman loaned the subscriber a volume of splendid Chinese Paintings, which confirms our practice and culture of the Chinese mulberry as correct and proper. These paintings represent the men, women and children in their national costume, at work — commencing with gathering the mulberry seed, cleaning the same, and then preparing the ground, — sowing the seed, transplanting the young seedlings, gathering the foliage, feeding the worms, heading or cutting down the plants to 2 or 4 inches above the ground, as *we do*, and every process of their management, to making up of the silk into skeins, as *we import it*, and the further process of winding the silk upon spools.

There are 28 plates, illustrating the different processes. The out door men laborers are dressed in plain loose frocks and trowsers, descending to the knees; some of the men with bare feet and legs; others with sandals and wooden shoes, adapted to their respective work of getting the plants in forwardness for feeding the worms. The women, boys and girls are employed in gathering leaves, feeding the worms, reeling the silk, &c. Some of the ladies have elegant *loose* dresses, of various brilliant colors, ornamented with wide embroidery around the neck and sleeves. The upper dress is loose, of gay colors, the sleeves large, and extend a little above the elbow; and all the females are dressed in *pantalettes* of various colors, each in contact with the upper dress — the countenance fair, delicate and intelligent, eyes downcast; most of the females have small feet and gay sandals; the hair neatly dressed, ornamented, and all wear bracelets above the wrists. As the original plates can be seen only by a few, it may be desirable to hear some description of each print, for the gratification of those who take some interest in the culture of silk.

The plates make it evident, that although the Chinese sow the mulberry seed *broad cast* as we do small grain, yet they do not let it long grow in that state, nor do they cut it off (as we do grass) for feeding worms, but they transplant it into settings or hills, like our Indian corn, and that it does not grow more than three or four feet in height, and is cut down every year to keep it in a shrubby state. Experience has convinced us that this procedure of taking off the tops to 2 or 4 or even 6 inches above the root, every autumn,

and covering the stump with earth, is the best way to secure the Chinese mulberry against the severity of winter, and is also a sure method to multiply the number of trees, and increase the quantity of foliage.

Some people have thought that the Chinese mulberry seed grew on trees of some height, like white mulberry (and on this account have been desirous of procuring large trees;) so far as we have had experience this is not the fact with the Canton mulberry, although it may be true of Manilla and other varieties.

The first plate represents the seed growing very near the ground, like the Canton mulberry, from the seed of which I imported and sowed in 1834. In 1835, one of these seedling trees being laid down, the layer sprouts produced full size mulberries, too late, however, for ripening. The same root this year, 1836, grew branches which were again laid down, and the layer sprouts, when 4 or 5 inches high, again had mulberries formed, which ripened in season for sowing, from which seed I have two small trees carefully preserved, to ascertain its character. After the seed had been gathered, the *same layer sprouts* again, with others, had plump mulberries formed, but were destroyed by birds or fowls. Both crops were formed only a little above the root or foot of the layer tree, and some of them rested on the ground. I have neither seen or heard of any other of the Canton plants producing seed; but what has already occurred here, in the formation and product of the seed, together with the representation and the gathering of the seed and the description of the leaf in the Chinese paintings, confirms the opinion that the *Canton Mulberry*, so called here, is the same as used in China for feeding worms. Experiments have been made this year, in feeding worms with Black, White, Manilla, and the Canton Multicaulis, and the worms evidently preferred the Canton to either of the others. If any one is possessed of the evidence that the Manilla Multicaulis is ever used in China for feeding worms, he is requested to make it known. The first notice we have of it is, that it was cultivated at Manilla as a tree of ornament. After being introduced into France, it was found that the silk worm would feed upon the Manilla, as they had done upon the white or black mulberry, in Europe or America. Last year a Manilla multicaulis of 6 or 7 feet in height produced a few seed, which grew several feet from the ground. The seed was planted and two or three of them vegetated and were preserved through the winter, and set out in the spring of 1836, and grew about 2 1-2 feet. The leaves were in shape and size very different from the original tree, and the leaves not more than one quarter as large as the leaves of the parent stock. It may be noted, that a number

of old white mulberry trees which have annually borne seed twenty or thirty years, grew within about forty rods of the *Mantilla multicaulis*; the *Multicaulis* was exposed last winter on the southerly side of a building, and this year the dead tops have been taken off, but has not produced any seed, or even borne a blossom.

D. STEBBINS.

MAY NOT HYDROPHOBIA BE CURED? — The rapid circulation of substances when injected into the veins, suggests to us the possibility of curing the most dreadful of all diseases the hydrophobia, and the late melancholy instances of its effects at Hartford, have induced us to give place to some new experiments recently performed by professor Leidman, of Germany. An half ounce of camphorated spirits of wine, was thrown, by means of an injection tube, into an incision in the femoral vein of a dog's thigh. In *sixteen seconds* the smell of camphor was strongly smelt in the breath of the animal, and rapidly increased. The respiration of the dog was hurried, the breath deep and vehement, and this was followed by violent convulsions. To destroy the poisonous effects of the camphor, an ounce of cold vinegar was injected into the same vein, when the convulsions ceased, and the animal soon afterwards recovered. Had not this antidote an instantaneous effect, the animal would have died in a few moments from the convulsions which followed the circulation of the poison.

An ounce of spirits of wine was injected into the same vein of another dog, when the vapor was instantly perceived in the animal's breath. Here no convulsions ensued, nor was an antidote administered, but he soon died. A dissection exhibited the strong smell of the vapor throughout the system, and the state of the solids was like that seen in persons who have died of hydrophobia.

On the injection of five grains of phosphorus with two drachms of olive oil, the breath of the animal in the dark exhibited clouds of phosphorescent fire, and the animal breathed forth dense columns of flame! — *N. Y. Star.*

HOW TO PRESERVE POTATOES.— We find in an English paper, the following article on the above subject, which we think may be useful. — Mr Webster, who communicated to the Society of Arts, this mode of preserving this excellent vegetable by immersion in ammoniacal water, or brine, received the thanks of the Society :

"If potatoes are immersed four or five days in ammoniated water, containing an ounce of the common liquor ammonia, to a pint of water, they will, on removal, be found to have their vegetable principle greatly checked, or altogether destroyed

so that they may be preserved throughout the year without the least deterioration of their general qualities. The temporary action of the ammonia in no way effects the potato beyond that of destroying its power of growth; if, however, any change is produced, it is rather beneficial than otherwise, somewhat improving the appearance and flavor of inferior potatoes, and giving them a mealiness they did not possess. The exportation of potatoes to foreign climates chiefly within the tropics, is an object of importance; and for the comfort of sailors there is nothing in the way of diet greater than the luxury of a potatoe with their salt food. As the means of prolonging their enjoyments, and adding to the healthful diet of a sea life, this mode may be adopted with advantage. The expense of immersion is very trifling, and they subsequently require to be spread in an airy situation to dry. Potatoes so treated, have been used after ten months' keeping in a warm kitchen closet, and were found to be perfectly good. The same effect may be produced by immersing potatoes in a strong solution of salt and water, taking care to remove by subsequent ablution the whole of the salt, but this requires some time, and repeated changes of water."

THE NEW ENGLAND CHRISTIAN ACADEMY, or *Beverly Manual Labor School*, held its quarterly examination, and ended the second term on Friday last. We were present at this examination, and highly gratified in witnessing its management, progress and appearance. Forty scholars were present, a number having recently left, with a view to teach school, and others for the purpose of attending school nearer home, during the winter season.

The scholars were examined in reading, writing, arithmetic, English grammar, English composition and geography; and several, in Latin and Greek. We noticed, and were particularly pleased with one native Spaniard, a youth, apparently eighteen, who read and spoke, both in Spanish and English, with great fluency, emphasis and propriety, and whose performances added brilliancy to the exhibition throughout.

THE BREAD BASKET is worth care and attention. We know how it is here, but in New York a person can buy as much bread of one baker for eight cents, as he can of another for ninepence. An examination of the weight of loaves was recently made there by authority, when it appeared that there two bakers whose ninepenny loaves weighed 2lb 7oz, one do. 2lb 6oz, two do 2lb 4oz, one do. 2lb 3oz, two do. 2lb 1oz, four do. 2lb, one do. 1lb 15oz, three do. 1lb 14oz, one do, 1lb 13oz, one do. 1lb 12oz, one do. 1lb 10oz.—*Bos. Transcript.*

FARMERS' WORK.

CUTTING WOOD FOR FIRES, TIMBER, &c. — Firewood, as well as Timber, should be felled when the sap is down; otherwise it will contain less substance in proportion to its bulk, and snap and smoulder away, giving but little heat. The farmer will do well to obtain his year's stock of fuel as early in the winter as possible, before the depth of snow in the woodlands renders it difficult to traverse them with a team.

Gen. Newhall, of Lynnfield, Mass. in a communication for the *N. E. Farmer*, vol. x, p. 9, observes as follows:—

"Having woodland from which I have cut annually, for several years past, from twenty to fifty cords of wood; it has been my practice to have it cut at the *time*, and in the *manner* that would best ensure a strong and vigorous growth of sprouts. To effect this purpose, I never allow a tree to be cut till after the autumnal frosts have caused the leaves to fall, and the sap to descend into the roots, nor later in the vernal season than the middle of April. The *manner* of cutting is to leave the stumps nearly on a level with the surface of the ground, from which the suckers are much more strong and vigorous, and less liable to be injured by high winds, than a growth from stumps cut ten or twelve inches high, as is the practice with some.

"Pursuing this course, I have never been disappointed, and have now on land, from which trees were cut in the midst of winter, a growth of sprouts of the most vigorous and promising appearance.

"Respecting large trees of the growth of centuries, cut them at whatever season you please, there is scarcely one stump in a thousand that will produce suckers."

Timbers growing in open land or on the borders of woods is best. That which grows on dry land has less sap, and is more solid than that growing in swamps. — Elm and Beech are good and durable under water. Elm holds a nail better in water than any other timber. Evergreens decay externally, oak, chestnut and maple decay first internally. The sap or white wood of walnut is tough, the heart brittle.

Loudon says that "the season for felling timber not to be disbarked, is commonly winter, but some, for the resinous tribe, recommend the summer as being the season in which it is generally felled in the north of Europe and in the Alps. But the summer season is there adopted from necessity, as in winter the woods are so filled up with snow, that felling is hardly practicable. As the timber of those countries is generally squared for market, the sap wood is chiefly removed, so that the season of felling does not seem to them as of much consequence. Besides, the timber is never so full of sap in summer, as in spring and autumn, and therefore, next to mid-winter, mid-summer may be the next best time for felling all kinds of timber trees."

The Farmer's Assistant contains the following judicious remarks on this subject:

"The right time for felling trees for timber, is in December and January, when the sap is down, as in this case it is liable to be eaten by worms, and will last much longer.

"By experiments made by M. Buffon, it is found that trees which are stripped of their bark in May or June, while standing, and then cut down the next winter for timber, are found to make the most solid, heavy and strong timber, and that even the sap is then good. The bark of oak and some other trees, may, at that time be stripped off to advantage for the use of tanning.

"Soaking timber in salt water is very good to increase its strength and durability.

"In order to preserve timber from cracking, while seasoning, let it be blocked out for the purposes wanted, and laid in a hay mow when the hay is carted in. — When the hay is dealt out the next winter, the pieces may be taken out well seasoned, and free from cracks. This is an excellent plan for seasoning all kinds of timber for carriages, &c. When this is done, if the trees are felled in winter, let them lie in logs till hay time arrives.

"We are assured by an experienced builder of some of the first rate bridges in the northern part of this country, that such timber as is to be exposed to the water, or to frequent wetness, should be felled during the *increase* of the moon; and that such as is intended to be kept dry, should be felled during the *decrease* of that planet. We find it also ascertained, by satisfactory experiments, as published in "the *Memoirs of the Philadelphia Society for the Promotion of Agriculture*," that timber used for fencing posts, will last considerably longer by setting the end in the ground, which was uppermost as it grew."

Extract of a Letter from a friend [in Brattleboro', dated December 22, 1836.

INUNDATION.—The heavy rain last Tuesday night, and Wednesday morning has caused much damage in the northern and western parts of this State, and in Vermont and New Hampshire. The streams flowing into the Connecticut, were swollen to a fearful height, and the rapid current filled with masses of ice, has carried away many bridges, effectually impeding the travel on some roads for the whole winter.

In the road near Bellows Falls, a ravine was excavated ten feet in depth, and extending fifteen feet across, rendering it extremely dangerous. It is supposed that more rain fell, than has fallen the last six months, and the ground being frozen, it all run off on the surface hence, the extraordinary and rapid rise of the streams.

A freshet of such magnitude, at this season of the year is uncommon; Indeed, I may say it never happened before, for "the memory of the oldest inhabitant runneth not to the contrary."

BRIGHTON MARKET.—MONDAY, Dec. 26, 1836

Reported for the Daily Advertiser & Patriot.

At market 620 Beef Cattle (including those unsold last week) 25 Stores, and 990 Sneep. 100 Beef Cattle unsold.

Prices—*Beef Cattle*—In consequence of the unpleasant weather, last week's prices for some qualities were hardly supported. We noticed a few extra taken at \$6 75; first quality at 6 6 50; second quality at 5 25 a 5 75; third quality at 4 a 4 75.

Sheep.—Lots were taken at the following prices viz: \$2 66, 2 88, 3 00, 3 25, and 3 50. *Wethers*, some of which were very fine, at 3 75, 4 50, 5, 5 50, and a very few at \$6.

Swine.—None at market.

REVIEW OF BRIGHTON MARKET FOR THE YEAR 1836.

13 weeks ending March 28.

6123 Beef Cattle, estimated sales	\$281,658
275 Stores,	9,625
7780 Sheep,	29,175
1109 Swine,	7,150
	<hr/>
	\$327,608

13 weeks ending June 27.

3450 Beef Cattle, estimated sales	\$172,500
883 Stores,	32,671
3568 Sheep,	11,596
5038 Swine,	35,266
	<hr/>
	\$252,033

13 weeks ending September 26.

6946 Beef Cattle, estimated sales	\$243,110
4290 Stores,	64,350
31880 Sheep,	71,750
3004 Swine,	13,513
	<hr/>
	\$392,723

13 weeks ending December 26.

21995 Beef Cattle, estimated sales	\$659,850
6410 Stores,	102,560
39654 Sheep,	89,109
6536 Swine,	34,314
	<hr/>
	\$885,833

RECAPITULATION.

33,504 Beef Cattle,	\$1,267,113
11,858 Stores,	209,206
82,830 Sheep,	201,630
15,677 Swine,	90,248
	<hr/>
	\$1,858,202

	1830	1831	1832	1833	1834	1835.
Beef Cattle,	37767	33922	40607	49180	36382	51096
Stores,	13685	15400	9886	3286	17485	15872
Sheep,	132697	84453	100583	90722	93766	96160
Swine,	19638	26871	14697	17408	28744	23142

HYMN TO THE FLOWERS.

BY HORACE SMITH.

DAY stars! that ope your eyes with morn to twinkle
From rainbow galaxies of earth's creation,
And dew drops on her lovely altars sprinkle
As a libation!

Ye matin worshippers! who, bending lowly
Before the uprisen sun, *God's lidless eye*,
Throw from your chalices a sweet and holy
Incense on high!

Ye *bright* Mosaics! that with storied beauty
The floor of nature's temple tessellate,
What numerous emblems of instructive duty
Your forms create!

'Neath cloistered boughs each floral bell that swingeth,
And tolls its perfume on the passing air,
Makes *Sabbath* in the fields, and ever ringeth
A call to prayer!

Not so the domes, where crumbling arch and column,
Attest the feebleness of mortal man,
But to *that* fane most catholic and solemn
Which God hath planned!

To that cathedral boundless as our wonder,
Whose quenchless lamps the sun and moon supply,
Its choir the winds and waves, its *organ* thunder,
Its dome the sky!

There as in solitude and shade I wander,
Through the lone aisles or stretched upon the sod,
Awd by the silence reverently ponder
The ways of God!

Your voiceless lips, oh flowers, are living preachers,
Each cap a pulpit, and each leaf a book,
Supplying to my fancy numerous teachers
From loneliest nook!

Floral apostles! that in dewy splendor,
"Weep without sin and blush without a crime,"
Oh! may I deeply learn and ne'er surrender
Your love sublime!

"*Thou wert not, Solomon, in all thy glory,*
Arrayed," the lilies cry, "in robes like ours!"
How vain your grandeur! oh, how transitory
Are human flowers!

In the sweet scented pictures, heavenly artist!
With which thou paintest nature's wide spread hall,
What a delightful lesson thou impartest
Of love to all!

Not useless are ye, flowers! though made for pleasure,
Blooming o'er fields and wave by day and night
From every source your sanction bids me treasure
Harmless delight.

Ephemeral sages! what instructors hoary,
For such a *world* of thought could furnish scope,
Each fading calyx a "memento mori"
Yet fount of hope!

Posthumous glories! angel-like collection,
Upraised from seed or bulb interred in earth,
Ye are to me a type of resurrection
And second birth.

Were I, oh God, in churchless lands remaining,
Far from all teachers and from all divines,
My soul would find in flowers of thy ordaining,
Priests, sermons, shrines!

MINIATURE ALMANAC,

For the Year of our Lord 1837.

Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
JANUARY.						
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
FEBRUARY.						
	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			
MARCH.						
	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
APRIL.						
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					
MAY.						
	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		
JUNE.						
	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
JULY.						
	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
AUGUST.						
	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	
SEPTEMBER.						
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						
OCTOBER.						
	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
NOVEMBER.						
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	
DECEMBER.						
	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

LINSEED OIL MEAL.

The subscribers are now ready to supply Farmers and Stable Keepers with the above superior article for feeding horses, cattle and swine the quality and cheapness of which has been fully tested by farmers in the vicinity, and stable keepers in the city, to whom reference will be given.

The Linseed Oil Meal is used generally as a substitute for corn meal, and is mixed with bran, or any other food having little nourishment, or with cut hay and bran for horses; and is believed to be as cheap food as corn meal at seventyfive cents per bushel.

The price of the above is thirty dollars per ton delivered at the mill in Medford, thirty dollars in Boston. Apply at No. 10 Commercial wharf, or in Medford at the mill. Nov. 23. GEO. L. STEARNS & CO.

TO PLOUGHMEN.

The subscriber has upwards of 300 acres of meadow land, now in sod, near the city of New York, that he wishes ploughed as early in the course of the next year as practicable. He wishes to contract for the whole, or any part. It must be ploughed four inches deep, the furrow must be turned completely over, so that the whole will lie flat. To plough a great part of this land, advantageously and speedily, a double team of light cattle is preferable to one pair of heavy oxen. Provender for men and cattle, can be procured on the premises. Apply by letter, directed to Anthony Dey, No. 63 Cedar street, corner of Nassau street, New York, by mail or otherwise, stating terms, &c. A. DEY. New York, Nov. 30.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO		
APPLES, new	barrel	2 25	4 00		
BEANS, white,	bushel	1 75	2 25		
BEEF, mess, new,	barrel	14 25	14 75		
No. 1,	"	12 00	12 50		
prime,	"	8 50	9 50		
BEEFWAX, (American)	pound	26	30		
CHEESE, new milk,	"	9	12		
FEATHERS, northern, geese,	"				
southern, geese,	"	54	60		
FLAX, American,	"				
FISH, Cod,	quintal	2 83	3 00		
FLOUR, Genesee, cash	barrel	10 62	10 75		
Baltimore, Howard street,	"	10 62	10 87		
Baltimore, wharf,	"	10 50	10 62		
Alexandria,	"	10 62	10 75		
GRAIN, Corn, northern yellow	bushel	1 10	1 12		
southern flat yellow	"	1 00	1 05		
white,	"	92	95		
Rye, northern,	"	1 40	1 50		
Barley,	"				
Oats, northern, (prime)	"	65	66		
HAY, best English, per ton of 2000 lbs		25 00	23 50		
best English, new	"	22 50	26 50		
hard pressed,	"	20 00	22 00		
HONEY,	gallon	45	50		
Hops, 1st quality new	pound	9	10		
2d quality	"	7	8		
LARD, Boston, 1st sort,	"	16	17		
southern, 1st sort,	"	15	16		
LEATHER, Philadelphia city tannage,	"	30	32		
do country do	"	24	27		
Baltimore city do.	"	27	29		
do. dry hide	"				
New York red, light,	"	24	25		
Boston do. slaughter,	"	23	24		
do. light,	"	21	23		
LIME, best sort,	cask	1 15	1 17		
MACKEREL, No. 1, new,	barrel	8 75	9 00		
PLASTER PARIS, per ton of 2200 lbs.	cask	3 00	3 12		
PORK, Mass. inspect. extra clear,	barrel	29 00	30 00		
clear from other States	"	28 00	29 50		
bone, middlings, scarce,	"				
SEEDS, Herd's Grass,	bushel	3 00	3 12		
Red Top,	"	75	1 00		
Hemp,	"	2 75	3 00		
Red Clover, northern	pound	13	14		
Southern Clover,	"	10	11		
SILK COCOONS, (American)	bushel	2 75	4 00		
TALLOW, tried,	lb.	9	10		
WOOL, prime, or Saxony Fleeces,	pound	70	75		
American, full blood, washed,	"	65	70		
do. 3-4ths do.	"	60	65		
do. 1-2 do.	"	50	58		
do. 1-4 and common	"	45	50		
Northern pulled.	{	Pulled superfine,	"	60	65
		1st Lambs,	"	55	60
		2d do.	"	45	48
		3d do.	"	30	35
Southern pulled wool is generally 5 cts. less per lb.					

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	14	15
southern, and western,	"	13	14
PORK, whole hogs,	"	10	12
POULTRY, chickens per pair,	"	16	16
BUTTER, (tub)	"	22	23
lump	"	23	30
EGGS,	dozen	28	30
POTATOES, new,	bushel	50	75
CIDER,	barrel		2 25

FESSENDEN'S

SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture and Rural Economy.

VOL. II.

BOSTON, FEBRUARY, 1837.

NO. 9.

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BOSTON, FEBRUARY, 1837.

MORUS MULTICAULIS.

To the Editor of the Farmer and Gardener :

SIR,—Having seen many statements and suggestions in the public prints, that the Chinese mulberry, (*morus multicaulis*;) was not as hardy as the White mulberry, and that it would not bear the extreme cold of our winters, &c., I deem it proper to state my own observation on the subject. I was the first person south of New York, who had the *Morus Multicaulis*; it was sent to me by my old friends, Wm. Prince & Sons, in 1828, in a collection of seven other varieties of mulberry. It was not then known by the present name, but it was called the Phillipine Island mulberry, and I believe was received by the Messrs Prince direct from those Islands. About a year after I received it, accounts were received from France of the receipt there of the *Morus Multicaulis*, and of its great value for feeding worms. On examining my trees, I at once found that my Phillipine Island Mulberry was the *Multicaulis*, and immediately commenced feeding my Silk worms with it; and from experiment, ascertained the truth of all the French had said about it. — From that time to this, I have continued to urge upon all, the propriety of cultivating this, in preference to the white mulberry. Its advantages are, it is full as hardy as the white; one pound of its

leaves contain as much nutritive matter as a pound and a half of the white; the silk made from it is of a finer texture and more lustrous; its leaves are so large that a pound can be gathered at half the expense and trouble that a pound of White Mulberry leaves require; it can be cultivated with infinitely more despatch than any other kind. These are all great advantages, and I am so well convinced of the correctness of this statement, that I do not hesitate to say, that within ten years, no other mulberry will be cultivated for feeding silk worms; simply because those who feed the worms upon the mulberry leaves will not be enabled to compete with those who feed on *Morus Multicaulis*, and they will be either compelled to abandon the silk business, or adopt the *multicaulis* for feeding. In relation to the hardiness of the *Morus Multicaulis*, I have cultivated it for seven years; never protected it in any manner whatever, and never lost a tree by the cold of winter, or any other way. I had fifty young trees in my garden last winter, and not even a bud on the extremity of the branches was injured. It is true that about fifty yards west from where the young trees stood, there is a grove of oak trees, and on the north, fifty yards distant, my dwelling-house stood; and my garden has an exposure to the south, with a gentle declination. But my residence in the winter of 1831-2, was very different. It was on a farm, four miles in the country, in a northeast direction: the situation at an elevation of 3 to 400 feet above the tide water. There my *morus multicaulis* had an open exposure to the northwest wind; yet none were injured. During the whole time, I have had the white mulberry of various varieties, and have observed that they were all equally hardy — none more so, than the *multicaulis*. I have seen the young *unripened wood* of all varieties destroyed by the winter, and was very early led to adopt measures to guard against it, and now I never lose a bud.

None but the young trees are ever injured by winter, and all we have to do is to give them such a start as to enable them to ripen their wood previous to the approach of very cold weather. I raise all my trees from cuttings in a hot bed, — About the first of March, I make an ordinary hot bed, like those used for cabbage plants; then I take the young wood of last year's growth, and cut it into pieces about two inches long, merely leaving a single bud on each; these pieces I stick in the hot bed, three inches apart, in a slanting direction, the upper end inclining to the north, and burying it so that the bud is scarcely seen at the surface of the earth; sprinkle the bed with a watering pot, and put on the glasses; keep the bed properly moistened by watering every day, and throw matting over the glass at night, and in the middle of the day, to protect both from frost and the hot sun. By the middle of May, the plants will be four, six or eight inches high, and may then be transplanted to the place they are to grow, like cabbage-plants, watering them once a day for eight or ten days, if the weather is dry; they will be found to be well rooted, and will grow from four to six feet the same season, and will ripen their wood so that the ensuing winter will not injure them. After the first year, I have never seen any of them lost by the winter, except in some extra cases, and in these the white mulberry has suffered, and even the native mulberry, fully as much as the multicaulis. Last winter, a white mulberry tree, seven or eight years old, in the western part of the city of Baltimore, was killed to the ground; while my *morus multicaulis* not a quarter of a mile from it, and north of it too, and in a higher situation, was not injured.

GIDEON B. SMITH.

BEET SUGAR.

BY W. G.

There seems to be some little conflicting difference of opinion on the possibility of manufacturing beet sugar profitably by individuals or families, among those whose attention has been drawn to the subject, and who profess to speak from experiment. For instance, Mr Sleigh of Philadelphia, in a late communication to the U. S. Gazette of that city, says: "An establishment will not clear its expense, unless it be calculated to manufacture at least from two to five hundred pounds of sugar a day; so that the idea of individuals in this country manufacturing profitably for private consumption is preposterous; their sugar would stand them, including labor, a dollar a pound." This opinion Mr Sleigh says he has come to "after numerous experiments."

On the other hand, Mr Le Ray de Chaumont, Mr Isnard, and others intimately acquainted with

the manufacture in France, assert that there can be no doubt of the practicability and profitableness of domestic or family manufacture, and that there are large quantities actually so manufactured in France. In addition to these statements, in the "Journal des Debats," of April 15, 1836, appears an article on this subject, in which it is stated, that four residents in the village of Wallers, department of the North, formed an association for making sugar, subscribing 50 francs each as capital. One was a blacksmith, the other farmers. These men were able to make from 40 to 50 lbs. a day, of sugar of a medium quality, a result surprising, considering their simple mode of conducting the process. They used curry combs to rasp the beet roots, used linen bags for expressing the juice, and the syrup thus obtained, was boiled in pots on the blacksmith's fires. Several others are mentioned as having introduced the business on a small scale successfully, and the French editor intimates as his opinion, that the time is not distant, when every family in that country, will make their own sugar, as they now do their preserves.

That some experience in the manufacture of beet sugar by companies and capitalists in this country must be acquired, before it can be introduced into families, can be readily conceived, but as the processes become simplified, and our farmers become familiarized with them, and with the culture of the beet, we can see no reason why it cannot be as well made in families here as in France; and there is no reason for doubt but that it will. If with cooking pots and a blacksmith's fire, six or seven dollars worth of sugar were produced; there can surely be no obstacles that American perseverance, and an improved apparatus will find insuperable.—*Genesee Far.*

(From the Maine Farmer.)

RAISING WHEAT.

MR HOLMES: — In your paper of the 9th ult. a correspondent calls on me for further remarks on my farming operations, more particularly as to my method of cultivating wheat.

I had intended to have made a communication on this subject as soon as I had ascertained the amount of my crops. That time has not arrived, but no matter, I shall not probably write so much, nor so often, as to make it very burdensome, if I begin now.

In 1835, as I have said in a former number, my wheat was sown mostly on land broken up in June and July previous — part of it in grass, most clover—the crop turned in—part was cross ploughed in the fall, part in the spring, and part not cross ploughed at all. The quantity sown, and manner of preparing the seed and the amount of crop was stated. On all that field, leached ashes were spread,

one bushel to the square rod, except two acres, on which was spread twenty loads of barn yard manure.

In 1836, sixteen bushels were sown on eight and a half acres, which was broken up the preceding August, after the hay was taken off. This field had been in clover three years, which I take to be *one* too many, as the clover roots are much diminished after the second year. This field was rolled as soon as ploughed — harrowed in October, and the same amount of leached ashes spread on, as I had used the year before. The seed was cleared of oats and light kernels by washing in brine as strong as salt would make it — this being more ponderous than water, will cause the oats and defective wheat to swim, where it may be skimmed off with an old tin pail cover, punched full of holes, unless you have something better. I will observe that my friend Samuel Taylor, of Fairfield, showed me some *Barley* cleaned in this way, which was handsomer than any I ever saw.

About the middle of Jun'y, 20 bushels of air-slacked lime was sown on five acres, and a bushel and a half of plaster on an acre and a half more. I *think* this part of the field was better grown than the remainder, but have no means of knowing positively. On one acre, on which were potatoes and Ruta Baga the year previous, I sowed two bushels of beardless wheat, whether the kind called "*tea wheat*," I know not. This was steeped in a solution of blue vitriol, two ounces to the bushel. The ground having been manured the year before, none was added, except one bushel of plaster. The wheat was very beautiful in appearance, and was ripe sooner than the other.

Whether this was owing to the different previous culture, or to the variety used for seed, I know not. I have usually found beardless wheat ten or fifteen days later than other kinds I have sown. I should have mentioned, that instead of cross-ploughing, I used a cultivator, which stirred the soil about three inches deep, drawn length-wise on the furrows. I intend to use this implement in future for all my spring sowing, having a frame made to that purpose, heavy and strong enough for seven teeth, with a spread of four feet. Two horses will go over four acres in a day with it. Peas and oats should be sown before its use, and other grains add after it, and the whole finished with a light harrow and roller. I have threshed about one hundred bushels of my wheat, and believe it will yield about eighteen bushels to the acre — may be more — certainly not over twenty. It was cut before it was fully ripe and does not make quite as much flour as did my crop the year before. Five bushels (not tilled) will make over a barrel, however, and I have it ground and put in my barrels for fifty cents. I have this day sold ten barrels for \$125. The seed was perfect-

ly free from smut, and so is the product. Hitherto, my wheat has been sown as the first grain crop.

I am prepared, should I live another year, to try it on *sward land* — after oats — after wheat, and on land which has been mowed one year and pastured two years with sheep, and ploughed in July last. My opinion is, that where the hay crop is abundant, in those parts of the country where that crop does not bear, in such years, a higher price than six or seven dollars the ton; the succeeding wheat crop will amply pay for turning the whole under, and rolling it close in June and July, besides having the soil in a most desirable state for future use. I have in two years, sometime since, sowed clover with my first grain crop to turn under in the fall. If the season is wet, there is a fine amount of vegetable matter after harvest, but I have never found a plough yet, which would handsomely turn it under. If the season is very dry, there will be little of it, and at the present price of seed, I have contented myself with my mode of two years to grass and two years to grain.

As to keeping my land in tillth, my creed is short and simple. All the products of the barn and hog yards, which have accumulated for one year, are put under the surface in the spring, for the culture of potatoes and Ruta Baga, to be followed the next year with wheat. On the land intended for wheat and other small grains, as much ashes, lime, plaster and compost, as I feel able to procure — and every two years follow my sheep with the plough for wheat. I hope no one will be led to adopt a course of culture unsuited to his soil and circumstances from my theory or practice. All lands are not suited to grain crops — and my candid belief is, that there is a greater failure among our farmers from not studying the nature of the soil they cultivate, and adopting the proper crops and proper rotation of crops, than *even going abroad to mill*. Yours truly,

JAMES BATES.

The following article is from a newspaper entitled "Eastern Shore Whig and People's Advocate," published at Easton, Maryland. We have been requested to re-publish it, which we do with much pleasure, on the ground of the respectability of the gentlemen who recommended it, though we have never seen the implements.

HUSSEY'S GRAIN CUTTER.

Report of the Board of Trustees of the Maryland Agricultural Society for the Eastern Shore, on the Machine for harvesting small grain. Invented by Mr Obed Hussey, of Cincinnati, Ohio.

The favorable account of the operation of this implement in several of the Western States, induced the Board to invite Mr Hussey to bring it

to Maryland, and submit it to their inspection. It was accordingly exhibited in Oxford, Talbot Co. on the first of July, in presence of the Board and a considerable number of other gentlemen. Its performance may be justly denominated perfect, as it cuts every spear of grain, collects it in bunches of the proper size for sheaves, and lays it straight and even for the binders. On the 12th of July, a public exhibition was made at Easton, under the direction of the Board; several hundred persons principally farmers, assembled to witness it, and expressed themselves highly satisfied with the result. At the Trappe, where it was shown by the Inventor on the following Saturday, an equal degree of approbation was evinced. It was afterwards used on the farm of Mr Tench Tilghman, where 180 acres of wheat, oats and barley, were cut with it. Three mules of medium size worked in it constantly, with as much ease as in a drag harrow. They moved with equal facility in a walk or a trot. A concise description of this simple implement will show that it is admirably adapted to the important purpose for which it was invented. Resting on two wheels which are permanently attached to the machine, and impart the motion to the whole, the main body of the machine is drawn by the horses along the outer stage of the standing grain. As the horses travel outside of the grain, it is neither knocked down or tangled in the slightest degree. Behind the wheels is a platform (supported by a roller or wheel) which projects beyond the side of the machine, 5 feet into the grain. On the front of the edge projecting part of the platform is the cutter. This is composed of 21 teeth resembling large lancet blades, which are placed side by side, and firmly rivited to a rod of iron. A lateral motion is imparted to it, by a crank, causing it to vibrate between two rows of iron spikes, which point forward. As the machine advances, the grain is cut and falls backwards on the platform, where it collects in a pile. A man is placed on the part of the platform, directly behind the machine, and with a rake of peculiar construction, pushes off the grain in separate bunches, each bunch making a sheaf. It may appear to some, that the grain will accumulate too rapidly for this man to perform his duty. But upon considering the difference between the space occupied by the grain when standing and when lying in a pile after it is cut, it will be evident that the raker has ample time to push off the bunches even in the thickest grain. In thin grain he has to wait until sufficient has collected to form a sheaf.

The machine driven around the grain which may be sown either on a smooth surface, or on corn r. ridges. For the first round may be cleared with a vadle; but this is deemed unnecessary; with a c. id, when driven over, is left in an in- for the gra.

elined position, and by cutting it in the opposite direction, as much of it is saved as with a cradle. Fourteen acres in corn lands, were cut between 10 A. M. and 7 1-2 P. M. The lands had never worked with the machine before, nor was the trial a day's work. For owing to the shortness of the straw, the machine was not allowed to cut when passing over the ridges from one side of the ground to the other, and this time was consequently lost. From the principle on which the cutting is performed, a keen edge to the cutter, is by no means essential. The toughest weeds, an occasional corn stalk, or a stick of the thickness of a man's little finger, have been frequently cut, without at all affecting its operation; it can be sharpened, however, in a few minutes with a file. The width of the swath may be increased by having the cutter made longer, and the same machine will cut a stubble of several different heights.

There is ample room to make the different parts of any size, though the strength of every part has been fully tested. The machine has been often choked by oyster-shells getting into the cutter, in attempting to cut too low a stubble. The motion of the machinery being checked; the main wheels slide on the ground, the strain on every part being equal to the power exerted by the horses. It can be managed by any intelligent, careful person. We deem it a simple, strong and effective machine and take great pleasure in awarding unanimously, the meritorious inventor of it, a handsome pair of silver cups.

SAGACITY OF THE HORSE.—The Pennsylvania Sentinel relates the following anecdote of the sagacity, and *humanity* shall we call it? of the horse.

As the Germantown stage, drawn by four horses, was passing along Third-street, above Willow, a small child endeavored to cross the street in advance of the leaders, apparently without observing the dangerous proximity of the latter. One of the leading horses appeared to appreciate the situation of the infant, and made every effort to avoid coming in contact with it. He swerved from the direct line as far as he could, and endeavored to pass it, but being brought up by the rein, was forced against, and prostrated the child. The instant the latter fell, he stopped, as if to allow it to escape; but being driven forward by the hinder horses and impetus of the vehicle, he reared himself on his hind legs, and with one bound cleared the body. In doing this, either from design or accident, he threw the child, with his hind foot, out of the track, so that when the heavy carriage passed on, it did not run over it, although it came within a few inches of it. This may be instinct, but it looks to us marvellously like reason and feeling.

For the Silk Manual.

PHILADELPHIA SILK REPORT.

A friend has favored us with a pamphlet containing a *Report of the Philadelphia Silk Manufacturing Company*. This details the proceedings at a meeting of the friends of the manufacture and culture of silk, held on the 15th day of November 1836. Our limits will not permit us to give the entire contents of the pamphlet, and we must confine ourselves to the following extracts.—*Editor of the Manual*.

The Committee has, as extensively as the time and opportunities have permitted, examined the subject confided to them. That it would be a great national benefit, if Silk should become an article of general production in the United States, and that if it can be profitably manufactured in our country, it will give employment to a great number of persons, are truths universally admitted. The culture of Silk by raising the Mulberry Tree, and feeding the worms, which produce that beautiful article of luxury and comfort, will not seriously interfere with the general business of the agriculturist; or require such a portion of the farm labor as will, to any material extent, diminish its usual productions. The Mulberry Tree flourishes best in cultivated fields; and one of the most approved methods of obtaining the leaves for the food of the Silk worm, is from mulberry hedges, which may be made, and securely used for the divisions of a farm into fields, instead of the usual fences, much more costly, and always exposed to injury and decay.

The periods of the year in which the Silk worm is fed, and when only the attention of the farmer and his family is required for their care and management, are those in which the usual labors of a farm are, for a great portion of those periods, not very great; and a large amount of the attention and industry which are required by the Silk worm when feeding, and making the cocoon, are most properly furnished by females and by children from 12 to 16 years. In the winter season, the family fireside of the farmer, now comparatively without employment, may be engaged in reeling the Silk from the cocoons; a most agreeable and profitable occupation for that part of the year.

Within the last two or three years the planting and raising of Mulberry Trees, and the production of cocoons, have become objects of much interest in almost every state in the Union. In Pennsylvania there are now hundreds of acres planted with Mulberry Trees, from which cocoons will be obtained in the coming year.—These plantations will be increased, when it shall be known that a certain market exists for the cocoons, and for reeled Silk at a fair price. Small lots are of-

fered daily; and the Committee entertain the belief that in 1837, one fourth of the supply for a manufactory of a moderate extent, can be obtained from American cocoons.—In three or four years, a manufactory with machinery and buildings, requiring a capital of \$100,000, may be supplied with American Silk. The favorable situation of Philadelphia, communicating by her internal improvements with vast fertile regions of the west and southwest, increases the confidence of the Committee in these anticipations. The climate of Pennsylvania, and of much of the countries to the west and south of our state, are as well adapted to the culture of Silk, as any in the world.

The quality of Silk obtained from cocoons of American production, is equal to that of Italy, and the abundance and low price of lands, assure us that its production will cost no more than in Europe; and the Committee believe it will cost much less. At present a large profit is obtained by the production of Silk at \$4 per pound.—Hereafter it may become more profitable to purchase the cocoons, or the reeled Silk, thus prepared in the family of the farmer; than to purchase cocoons at 25 cents per pound, as they now sell. Three hundred and ten good cocoons make one pound, and eight pounds of cocoons will give one pound of reeled Silk.—At that rate, the reeling being done at the manufactory—the cost of the Silk will be about \$3 per pound. When cocoons are produced in abundance, the Committee are disposed to believe that at twelve cents per pound, the raising of them will be as profitable as growing cotton at fifteen cents per pound.

For two or three years after the establishment of a Silk Manufactory, it must be in part supplied by foreign raw Silk. This can always be readily obtained. Large quantities of raw Silk are imported into the United States, principally intended to be exported to Mexico, where it is manufactured. Any portion of this can be arrested on its way, and used here; and the constant and rapid intercourse with England and Italy, will always secure its import, as it may be required, in a short period of time.

The present prices of foreign raw Silk, are Bengal, \$4.25 to \$6.00 per pound. China, \$5.50 to \$6.00. Italian, \$6.00 to \$7.00 per pound.

The amount of manufactured silks imported into the United States, in the year ending on the 30th of September, 1835, was \$17,497,900.

Silk is manufactured in France principally by adult labor, but the introduction of machinery in the manufacture of silk, which is in the ratio at 90 per cent. in the hundred, which reduces the cost of manufacture from 50 to 80 per cent. England, by the use of machinery, has become the

successful rival of France, in many articles of silk manufacture. Let the ingenuity of America be applied to silk machinery, as it has been to the machinery for making cotton and woolen goods, and its success will be the same. The higher cost of adult labor in the United States, will thus be rendered comparatively unimportant.

The cost of a manufactory, and the amount of capital necessary to conduct it will depend much upon the extent of the building, the cost of the ground, and the amount of Silk proposed to be manufactured. The expenses of machinery are not heavy, as Silk machinery is always light in its construction, and requires no great power to keep it in motion. A six horse power steam engine will move the machinery to manufacture two hundred pounds of raw Silk per week; and a building of 30 feet in width, by 225 feet in length, 3 stories high, will be sufficient for all the purposes of manufacturing, dyeing and packing that quantity of Silk within its walls. It is proper also to observe that the expense of machinery, will depend much on the kind of work to be done. Many articles manufactured from Silk, require machinery of but little cost; and the estimate is made with confidence, that an establishment for the manufacture of Silk into plain and ordinary articles, will cost no more than about one eighth of a cotton factory, to turn out the same number of dollars worth of work; and with equal if not greater profit.

(To be continued.)

CHINESE MULBERRY TREES.—We find in one page of the Silk Culturist, the following quantities of this tree advertised, as also about 2 millions of plants of the White Italian Mulberry.—Truly we are a propagating people.

75,000 by W. G. Comstock, Hartford.
50,000 do. do.
100,000 by W. Prince & Son, Flushing.
75,000 by W. Kenrick, near Boston.
20,000 by A. Row, near Rochester.

320,000

and a great many thousand more by D. Stebbins of Northampton, Mass. C. B. Mellory, Westfield, Thomas J. Bestor, Suffield, and Joseph Davenport of Colerain. Now allowing each plant to occupy a space of three feet by one, which is the fair nursery distance, 320,000 Multicaulis trees would fill, in nursery order, about 40 acres, which would average to the five proprietors, eight acres each; and if planted in orchards, at 15 feet apart, would fill 1660 acres. The 2,000,000 white Italian would plant, at the same distance, something more than 10,000 acres. We seem in a fair way to have at least mulberry trees.

SOMETHING NEW.—A new, and, it would appear, a most effectual safeguard against fire has been discovered by a gentleman of Washington. It is a composition of the appearance and consistence of paint, which when applied to wood renders it secure from damage or destruction by fire. A public experiment of its utility was made last week in Washington, in the presence of the Mayor, General Gratiot, Colonel Edwards, Mr. Cunningham, and several other gentlemen, the surprising results of which are thus noticed in the Georgetown Metropolitan:

Two small houses had been constructed of dry pine boards, the one open to permit a free passage for the flames and air, and the other close built and secure. Thirty barrels of pine shavings were then placed around and in contact with both the buildings, and six barrels of the same inflammable matter were piled up on the floor of the open house in contact also with the sides of the interior. When the match was applied, the flames rose to a considerable height above both structures, with much fierceness; but on the decay of the fire it was found that the house was not even scorched, except in one or two places, where the paint had not been well applied. The close built house, which had been properly prepared, escaped entirely. The fire continued for nearly an hour in a manner that would certainly have reduced to a heap of ashes any pine, oak, or other wooden building covered with ordinary paint.

Colonel Paimbœuf declares that this composition will not cost more than common paint, that it may be made as fine and beautiful, and various in color, and that it possesses far greater durability.

The gentlemen above mentioned, and others who witnessed the experiment, have issued a certificate expressive of their satisfaction, and strongly recommending the paint to the attention of Government.—*Balt. Amer.*

A PATRIOTIC FAMILY.—Capt. Simeon Cole, now living in Bradford, and five brothers, being six sons of the late Samuel Cole of that town, performed twentyseven years and eight months service in the revolutionary war! We doubt whether the same is true of any other family in the United States. This little town furnished a very large portion of soldiers in the revolutionary army; and no less than eight of her sons were slain on Bunker Hill.—*Haverhill Gaz.*

SPEED OF THE DOG.—There is a dog belonging to the conductor of the train on the Dedham branch road, which accompanies the train to and from the city every trip, and always keeps a rod or two in advance of the engine. His speed has been once or twice tried, and he has beat the locomotive.

BEANS.

MR HOLMES: -- Permit me to suggest to my brother farmers, that as the price of beans have been for several years past, there is no crop, (all things considered) gives a greater profit than beans. They do not need land in a high state of cultivation, if planted by themselves, as they always should be, when a variety not prone to rust is cultivated. That variety called the pea-bean is very prone to rust, but not so much so if a few kernels of corn are planted on the north side of every hill — let the bean crop be depended on more than the corn. Aside from their inclining to rust they are too late a bean for our climate, and ought no longer to be cultivated in Maine, since there are several other varieties of white beans that mature much earlier, and yield more, and are as valuable for the table. Never plant a running bean, they smother themselves and every thing near them. Many beans are taken into the woods as supplies for loggers — many more taken to sea, as they are not injured by frost in winter. This is judicious. Besides, they are more hearty, as we say, and therefore evidently save meat and bread, and one who dines on them is well sustained through the remaining part of the day if he labors hard. Let us raise more of them, and attend more to the varieties we plant, and my word for it, so long as people lumber and go to sea, the price will fully reward us.

A FARMER.

HIGHLY IMPORTANT INVENTION. *The life Spar.* Shortly after the destruction of the Royal Tar, we alluded briefly to the manifest importance of every vessel's being abundantly provided with life preservers, adding, that no traveller should venture upon our seas or rivers, either in sail or steam boats, without being furnished with one of these sure aids in times of danger. We now publish, with great pleasure, a new invention of greater magnitude, viz: The Life Spar. In consequence of the numerous accidents which are daily occurring upon our waters, the inventor, S. T. Armstrong, agent of the Roxbury India Rubber Company, was induced to offer this article to the public. One of these will support and save twenty four persons. It can be inflated with very little effort and transported with the greatest ease. — When a boat is leaky, two of these spars attached to either side of the boat, will enable it to buffet the most severe storm, after the vessel itself can afford no chance of safety.

The spar is twenty feet long and thirty-six inches in circumference, of a cylindrical form, composed of the strongest twine duck, and covered between its lining and exterior with India Rubber. It may now be seen at the Company's store in Washington street, Boston, and Pearl street, New York; and it will amount to culpable negligence in captains and other persons, who are

subject to risks at sea, either of life or property, not to give it a fair trial. We repeat, that, in our estimation, it is an invention of the highest importance, and we believe that in a short time owners would as soon think of sending vessels to sea without chart or compass, as without these life spars and life preservers.—*Boston Post.*

ON SELECTING SEED.— No duty in the whole course of husbandry should be more carefully attended to than that of selecting seed. One rule that ought always to guide the farmer in his selecting is, to select the *best*. The brevity of the present summer and early frosts, have to a very great extent, rendered the products of the soil not only unprofitable for consumption, but wholly unfit for seed. During the last few years, many losses have been sustained in the potato crop, in consequence of using unripe seed; and if the greatest care is not exercised in selecting and preserving seed for the next season, failure must inevitably follow, not only in potato fields, but also in those sown with wheat, oats, and other white crops. Let the ripest seed that can be obtained be secured; and those individuals whose crops were injured by the early frosts, ought in no case to use the products of their own farms for seed, if they can possibly obtain seed of a better quality from their neighbors. That these hints may lead to attention on this subject is the desire of

MELVILLE.

POTATOES.— Every Englishman who goes to the continent, eats potatoes *à la maître d'hotel*. On his return, he is desirous of having them at his own table, a thing that can seldom be accomplished, though the process of preparing them is very simple. It is as follows: Boil the potatoes, and let them become cold. Then cut them into rather thick slices. Put a lump of fresh butter into a stew pan, and add a little flour, about a tea spoonful for a middling sized dish. When the flour has boiled a little while in the butter, add by degrees a cupful of broth or water. When this has boiled up, put in the potatoes with chopped parsley, pepper and salt. Let the potatoes stew a few minutes, then take them from the fire, and when quite off the boil, add the yolk of an egg, beat up with a little lemon juice and a table spoonful of cold water. As soon as the sauce has set, the potatoes may be dished up and sent to the table.—*Magazine of Economy.*

Chilblains or frosted feet are cured by bathing the feet in warm water until they are soft, then place them in a basin of cold vinegar for a few moments, and go to bed immediately, and you will rise in the morning, freed from this disagreeable and vexatious complaint.—*New York Star.*

PRESERVING SEEDS, &c.—Mr Thomas Short, in the Horticultural Register, says in substance, sugar, salt and paper have been used for the purpose of preserving seeds, but have proved insufficient; but the following method will answer perfectly well:—Let the seeds which are to be preserved, be immersed in a strong solution of Gum Arabic; then let them be carefully dried, and without any further preparation, they will become perfectly secured against the injurious consequences of a humid and variable atmosphere, and not subject to mildew, and therefore enabled to retain their vitality after the most protracted voyage.

CURE OF LOCK-JAW.—Among the horses exhibited at the West Suffolk Agricultural Show on Friday, was a fine cart mare, the property of Col. Rushbrook, which was some time since seized with lock-jaw, and was perfectly cured by pouring cold water along the back from a watering pot, without intermission, for a considerable time; the application being recommended by an eminent London veterinarian. This affection has been generally considered incurable.—*English paper.*

MANSFIELD COAL.—A specimen of coal from the Mansfield mine, weighing 500 lbs., has been placed for exhibition in the area of the City Hall. The company after sinking a perpendicular shaft, 60 feet deep, opened a gallery 40 feet wide below the out-croppings of the coal, and proceeding horizontally 22 feet—have come to a stratum of coal, of which the one exhibited is a specimen—five feet 4 inches wide, and have received new encouragement to proceed in the exploration—of the successful result of which, we entertain no doubt.—*Transcript.*

INDIAN BREAD.—We recently partook of some most excellent Indian corn bread baked in large loaves, and the following method of making it was given.

After the meal is prepared, pour some boiling water on it, till it is wet. Put in six steamed sweet apples to a loaf, a little yeast, milk, and enough cornell or middlings to render it capable of being kneaded. Let it rise, and then bake it three hours at least.

NEW FURNITURE.—A New York Yankee has invented an improved bee hive, which is said to have the appearance of, and to be, in fact, a mahogany side board, with drawers above, and a closet below; with glass doors, to be placed in the chamber of a house, and to be connected with the open air by a tube passing through the wall. The operations of the bees are clearly seen through the glass doors, and the honey is deposited in the drawers.

TAKE CARE OF YOUR ASHES!—The Salem Gazette says, “We are informed that three individuals have been prosecuted and fined under the late Ordinance for keeping ashes in wooden vessels.” Two thirds of the dwelling house fires, probably proceed from this cause. It should be remembered by families in this vicinity, that the conditions of the Mutual Fire Insurance Company, forbid that ashes should be put into wooden vessels.

TOOTH ACNE.—Creosote, we see by those of the foreign medical journals, is highly recommended for this painful disease. First cleanse the cavity of the effected tooth thoroughly, then apply the creosote with a fine camel's-hair brush, and afterwards fill the cavity with a piece of cotton. This substance has become quite a panacea in Europe, and many important cures have been effected by it.

TO SAVE CUCUMBERS FROM BUGS.—Sprinkle on the vines at evening, (after cooled) tea grounds as they are commonly left by families after use. This done so often as two or three times a week, will not only prevent injuries from bugs, but it strengthens and invigorates the vines and causes them to become exceedingly fruitful.

A GREAT CROCODILE.—A Crocodile, estimated to be upwards of one hundred years old, measuring 12 feet 4 inches in length, and weighing 551 pounds was killed in the Red river, near Natchitoches, La. on the 26th ult. His paws after being dissected weighed 36 pounds—and the carcass yielded 11 gallons of oil.

Mr Green, the aeronaut, with two other English gentlemen, performed a voyage in a large air balloon, in 12 hours from London to Welburg, in Germany, 480 miles in 17 hours.

KREOSOTE.—Of this article, which has been—like almost every other newly discovered substance, possessing a powerful, active principle—strongly recommended as an “infallible cure” for the tooth ache, a cotemporary remarks:—“We would caution our readers not to tamper with this dangerous extract. Unless used with the greatest care, disastrous consequences will follow. We know a lady whose face was partly paralyzed by using it. She nearly lost her voice. It is highly antiseptic, and is, when dropped upon the tongue absorbed almost immediately by the system. It is generally used with four hundred parts of water.”—*Transcript.*

The Barre Gazette cautions the ladies to keep at a proper distance from the fire, as their clothes are very liable to ignite and produce disastrous consequences.

(From the Vermont Chronicle.)

BEES AND HONEY.

Honey raised in a cold climate and mountainous country, is the purest and best. As a source of profit, very few persons in Vermont keep bees, and yet we are convinced that the Green Mountains might become as distinguished for excellent honey, as they are for first rate Beef, Pork, Butter and Cheese.

We lately cut the following from a New York paper:—

HONEY.—In passing through the garden employed by the American Institute, our attention was directed to some boxes of Honey, of a clear, white and beautiful transparent appearance, such as has seldom been seen in the New York Market. It is presented by Messrs Wilcox & Cone, of West Broomfield, Ontario County, Ohio. One of the firm has furnished us with the following statement:—

“Last spring we had not more than 220 swarms, this fall we had over 420; nearly all of the young swarms are good to winter over. We have taken from our bees 3,700 lbs. of box or cap honey; in addition to this, we furnish all the vicinity where we live with boxes, showing them how to manage, promising to buy all the honey that was built in them. This added to our own, made 5,641 lbs. All of this was taken away without destroying a single swarm of bees. Near seven-eighths of this honey was of the white, such as was exhibited today; it arrived in New York market on the 9th of September; nearly two-thirds of it is already sold. We have adopted this plan to make our bees profitable, and not destroy an insect that is such an example of industry.”

Wishing to give our readers more information respecting such an instance of successful business in the hive, we wrote to Messrs Wilcox & Cone. From their very obliging answer to our inquiries, we copy the following:

Our hives are of almost all descriptions commonly used, having bought many of them. We prefer the smaller sizes, such as will hold about thirty pounds of honey when well filled, as that will be sufficient to winter a common swarm, and such hives swarm the most. We procure our honey from a box of about seven inches square, placed on the top of the hive. The box should be made to fit very close to the hive, and no communication out of it only through the hive. The hole should not be less than three inches square. These should be put on the old hives, before the Bees begin to gather from the white clover, and on the young swarms when they are first put into the hives. In this way instead of the bees lying on the outside of the hive, idle, as they commonly do, they have room within the box, where they continue to build, and gather, till they are ready

to swarm. Many of our swarms do not work on the boxes at all; but by boxing them all, we average from 7 to 16 lbs., from every old swarm. Last year we got over 16, it being more than a common season for honey.

We have not been troubled much with the moth; having so many hives together the birds keep them mostly subdued. We think it the best plan to raise the hive so that the bees can just pass out all round the hive: they keep the bottom board clean of comb dust, so there is less chance for the millers to deposit their eggs, where they will not be destroyed. Care should be taken to kill all that can be found on and around the hives every day or two.

We use no means to furnish our bees with food, excepting to feed some light swarms towards spring; which we do, by putting comb filled with honey, in the box on the top of the hive. Bees flourish the best where there is plenty of Elm, Sugar Maple and Basswood, and where the soil is natural for white clover. Elm and Maple blossom early in the spring; after the spring flowers are gone, bees stir but little, until white clover begins to blossom; if it fills well with honey, bees soon fill their hives and begin to swarm; if not, they swarm late, and the swarms stand a poor chance; the Basswood and Buckwheat are the principal flowers they have to gather from.— Sometimes there are honey dews which help them much.

Our box honey which is pure and free from bread, is gathered principally from Clover and Basswood blossoms.

Our hives stand in the same situations winter and summer. We are careful to have the tops secured so as to keep the snow and water out, and not admit a draught of air through the hive. Every hive should have a three quarter or half inch hole from four to six inches from the bottom, in front, to afford air in winter. In very cold weather, frost accumulates in the hive, from the breath of the bees, and in mild weather it melts and runs down to the hole at the bottom and freezes to ice and shuts out the air, if there is no other air hole. Many bees are smothered greatly for want of this knowledge. Bees winter the best in straw hives, but do as well in summer in board or tub hives.

There is a variety of opinions on the subject of bees, owing we think, to their being liable to change. Two swarms in the spring may stand side by side, and to appearance, be equally good; one may prosper well, the other dwindle away and die; or they may both swarm equally well, and one a few weeks after swarming be robbed; the other winter well.

Our reason for this is, that in swarming time, the Queen or Queens, if there be more than one, (as there frequently is at this season of the year,

but at no other) all leave the hive with the swarms and leave but few working Bees and Drones in the old hives; which, of course, without a Queen die. Sometimes they will guard their treasures till winter, and then die, and leave the hive well filled with honey.

After swarming is over, such hives as have swarmed out, we take up as soon as they are likely to be robbed, and save the honey. In October we examine our young swarms, and take up all that have not nearly enough to winter on. In this way we obtain much honey, and destroy none of our good swarms for increase.

P. S. In a statement of ours that was published in some of the New York papers, showing the amount of honey that we raised the past season, there was a mistake made by the Editors. It was printed 700 pounds, but it should have been 3700.

From the Ohio Farmer.

LOCATION, SOIL AND CULTIVATION OF THE MADDER CROP.

A location facing the south or south-east is to be preferred. A sandy Loam not over stiff and heavy, or light and sandy, or a good brown, deep, rich upland Loam, free from foul grass, weeds, stones or stumps of trees. Where a crop of potatoes, peas, corn or wheat, has been cultivated the past season, plough deep twice, once in September and once in October, and if rather stiff let it lie after the plough until spring. When the spring opens, and the ground has become dry and warm, (say in Tennessee, 1st of April, Ohio 15th, and New York, 25th to 1st of May; I speak of the spring of 1836.) Plough again deep, the deeper the better, then harrow well and strike it into ridges with a one horse plough, three feet wide, and four feet vacant, or making a ridge once in seven feet, raising it, if on rather moist ground, eight or ten inches, and dry land six or eight from the natural level, then with a light harrow level, and shape the ridges like a well formed bed of beets, &c.

We will suppose you intend to plant one acre of ground, and that you have purchased 8 bushels of top roots in the fall and buried them like potatoes on your premises — count the ridges on your acre, and take out of the ground, one bushel of roots, and plant it on 1-8 of your ridges; you will then be able to ascertain how to proportion your roots for the remainder.

The following is the manner of planting, cultivating, &c., when the quantities of ground do not exceed three or four acres. One person on each side of the ridge to make the holes, (plant four inches below the surface of the bed, or thereabouts, when covered,) one on each side to drop the roots, and one on each side to cover, pressing

the hill like that of planting corn, or three persons on one side, as the case may be, whether you have one or more acres to plant. Let the owner be the dropper of roots, and his most thorough assistants behind him. Make the holes from twelve to eighteen inches apart, and about six inches from the edge of the ridge. As the plants are supposed to have been purchased in the fall, the roots may have thrown out sprouts, and possibly have leaved. In this case, in dropping and covering, you will leave the most prominent sprout or sprouts a little out of the ground, as where a plant has leaved, it ought not to be smothered.

When the plant gets up three or four inches, weed with the hoe, and plough with one horse, between the ridges or beds, but not on them; this will take place 2 or 3 weeks after planting. When up 12 or 15 inches, many of the tops will fall; assist them with a ten foot pole; two persons cross them each way across the bed, cover them with a shovel or garden rake, throwing the soil from between the ridges. — After loosening with the one horse plough, you will, with a shovel scatter the earth between the stalks rather than throw it into heaps; of course we wish to keep the stalks separate, as they are to form new and important roots in the centre of the beds. About the 20th of June, you may plough between the beds, and scatter more earth on the fresh tops, (all but the ends) and when you get through, you may plant potatoes between the beds if you choose. I do not recommend it, if you have plenty of land, although I raised 1070 bushels of Pink Eyes on eight acres the first year, and 60 bushels of corn. If your land is perfectly clear of weeds, you are through with your labor on the Madder crop for this year, except in latitudes where there is not much snow, and considerable frost; in this case cover in October two inches or thereabout. 2d year; same operations in weeding, but no crop between; cover once in June. 3d year; weed only; 4th year; weed in the spring, if a weedy piece of ground.

Begin to plough out the roots in Tennessee, [3 years old] first Sept. Ohio [4 years] same time. New York, 15th or 20th, after cutting off the tops with a sharp hoe. In ploughing out the roots use a heavy span of horses, and a large plough. We ought to choose a soil neither too wet or too dry, too stiff or light. Shake the dirt from the roots, and rinse or wash, as the soil may be, stiff or light; dry in a common hop kiln; grind them in a mill after Wilson's Patent Coffee Mill; this mill weighs from one to two pounds. The madder mill may be from 60 to 80 lbs. weight. Grind coarse, and fan in a fanning mill; then grind again for market. The profit of this crop is immense; the exhaustion of soil

trifling, and glutting the market out of the question.

The Editor of the Albany Cultivator, vol. 2, page 20, says — "It is principally cultivated in Holland, the province of Zealand, being literally covered with it, from whence it is exported to every part of Europe and America, yielding almost incalculable profits. The import of this article for the use of our manufacturers, is said to amount in value, to more than two millions of dollars annually." Mr Jefferson, while minister in France, writes: "They cultivate madder here at immense profits; they dig it once in five or six years." I have before me a communication from a cultivator of the article, (see Cultivator, vol. 2, page 93,) who makes the clear profit to amount to \$888 30, on an acre once in four years. The lowest amount of profit that I have known on an acre in four years is \$300; the highest 1200; this last included the sale of top roots for planting. The amount will vary according to the soil and cultivation. I have unquestionable evidence that one hill (2400 to the acre) has produced in five years, 4 lbs. of kiln dried madder; another at five years old, 6 lbs. another wherein they took uncommon pains with the hill, 8 lbs. 8 oz. Mr Woodbury of Winfield, Herkimer county, N. Y., the writer of the above mentioned communication, purchased in the fall of 1834, one-fifth of an acre of madder 4 years old and planted in hills, (far less productive than if planted in ridges) for which he paid \$80, and dug from it one thousand one hundred pounds. After it was kiln dried, he sold it for 18 cents the pound. The usual yield for four years is 3 pounds to the hill, where the land is first rate, and the cultivation is performed by a snug farmer. The crop increases something like the following ratio, viz. 1st year, small growth. 2d, double. 3d, equal to the two first. 4th, equal to 15 per cent. on the whole; at least this is my opinion, not having dug any that was five years old. Madder grows, and the stalks are fresh, in any of the middle and western States until killed by a hard frost, and is almost the first vegetable that starts in the spring, hence I should suppose that madder in Tennessee, at 3 years old, would be equal to four years at Birmingham, Ohio; four and a half, Oneida county, New York; five years Winthrop, Me. The cultivators of Holland and France, from whom we draw most of our supplies, and most of the agricultural authors of those countries have been silent on the subject.

I am located in the rich bottoms of the Vermilion river. I, in connection with another person, plant this spring 10 or 12 acres. As I have always been of the opinion that a madder soil should be composed in a great degree of decayed vegetables, I think I shall get in four years from 5 to 6000 lbs. of dried Madder per acre. I have a good upland

1 1-2 acres, planted some time since, from which I can spare enough roots next fall, to plant 6 or 7 acres. The price will be, in the fall, for 6 bushels, \$24; over 6 and under 12, \$3 50 per bushel; over 12, \$3.

Birmingham is 38 miles west from Cleveland, Ohio, and 14 miles south-east from Huron, Ohio. Messrs. Wickham & Co., Forwarding Merchants, Huron, will be applicant's agents, to whom funds may be forwarded for the purchase of roots; P. E. & E. B. Bronson, Birmingham, owners, or R. Bronson, Manager. All letters on the subject must be post paid to meet with attention.

I had been in the practice of using the 'Rubin Tinctorum, or Dyer's Madder,' for many years previous to embarking in the business; and before I commenced, I ascertained that the price of the imported article was worth (the preceding thirteen years, on an average, in the New York market,) 15 cents per lb.; the ten years preceding the thirteen years, it was worth 25 cents, and in that time have known it worth 44 cents. In my early communications to Editors of agricultural papers, I stated the crop would equal 2000 lbs. 3 years old, but did not dream that 4 years would produce an average of 4000 lbs. on good land and good culture. The cost does not exceed 4 1-2 cts. per lb., exclusive of selling top roots for planting. They may be sold with profit at three years and even two years old.

It is surprising to me that no more than sixty acres is as yet under cultivation. There will be about one hundred acres planted this spring, and from forty-five thousand to seventy-five thousand acres wanted for the consumption of the United States, and England as she cannot grow the article, imports all she uses. I say she cannot grow it to advantage; her summers are too moist and cool. It is more absurd to let foreign nations export madder to this country, than to let them export wheat or wheat flour. It is more hardy than the potato crop. It is worth three cents more per pound, than the best imported. As a proof, no imported madder can be sold where this has been kept for sale. The difference consists in this, that the brightest roots are selected in the field in those countries, dried and ground, and sent to England. They use it in dyeing their Adrianople, or Turkey red, on cotton; the rest dried, (without rinsing) ground, and sent to America. In this country, a prudent cultivator rinses, dries, and grinds altogether; then fans or separates the loose bark and small fibres from the pure article. The refuse is used for ground of many colors.

Madder is used in whole, or part, for the following colors on wool, both in England, France, and America, viz: blue, black, red, buff, olive-brown, olive, navy-blue, and many others; finally it produces one of the most beautiful, durable

and healthy colors that is at this time dyed; as for calico printers, it enters greatly into their dyes. The city of Lowell, in Massachusetts, uses thirty thousand dollars worth per year. A war with France would raise the article to thirty one cents per lb. in the New York market. One small establishment in Otsego County, New York, uses equal, each year, to three-fourths of all that is raised in the Northern States at this time.

The reader will now inquire why have not the farmers in the United States, entered into the culture of this article, and completely glutted the market? I will answer, that most of them want their profit at the expiration of each year, not thinking that the horse or ox is four years old before it is profitable to sell. But there is another difficulty. I have before observed that there was wanting, for the consumption in the United States, from 45 to 75,000 acres. The amount of Madder roots, for planting, dug last fall, was 1000 bushels. There will be planted this spring, say something more than 100 acres; next fall there will be for sale, roots amounting to 250 bushels, and next year, enough to plant 200 acres. Probably it will take ten years or more, to procure a supply of roots to plant, equal to the consumption of 1835—6 or 7. I have before me a communication from a respectable correspondent, detailing the mode of cultivation in Holland and France, together with queries, requesting my answers, which I will most cheerfully give, and which will be forwarded to be inserted in your paper, should you deem the above worthy of publication.

I have, for many years past, believed that the soil and climate of Ohio, was peculiarly favorable to the culture of silk, madder, and the grape for making wine; and having resided here in course of the last and present years, several months, I have been more and more confirmed in that opinion. What hinders this State from rising in rank above New York? Let every farmer take an agricultural paper, and improve the privileges that nature has given them. I have examined the soil and privileges of this county in particular, and do not hesitate to say, I believe that it equals any part of the United States. There is, I believe, no desirable fruit or grain that grows north of Philadelphia, but what flourishes here. It is certainly a most desirable soil and climate, compared with that of the middle counties of New York. Many of the farmers of this section, only skim the surface of the land with the plough. What hinders the water, in the spring and fall, from settling in the ground through the sub soil, and bursting out in springs? — Shallow ploughing. What hinders the farmer from obtaining thirty bushels of wheat to the acre? — Shallow ploughing. I wish I were able to commit to paper all I feel in favor of manual labor, or agricultural schools, backed by numerous agricultural papers, containing

communications from a Buel, a Colman, and a host of other scientific and practical farmers. I am not a practical farmer, in a large way, myself; but the aid I have received from perusing those papers, for a few years past, has been of great benefit to me — yes, ten times the expense of four agricultural papers per year.

Not being brought up on a farm, how could I exercise judgment in the selection of a horse, ox, sheep, or hog? I read the communications of writers of acknowledged reputation, on the subject, and compared their arguments with my own reason, improved by previous reading, and made my choice. How should I be able to select and cultivate the various grains and grasses, or to till the ground to a proper rotation of crops, or select and engraft with my own hands the best fruits in the country, and last, though not least, to have a good garden?

I might go on and multiply reasons why I will patronize agricultural papers; but knowing my inability to do justice to the subject, and fearing your readers will think I am fishing for some particular individual, I will conclude with wishing you and your brethren in the cause, many subscribers, and that you will consider me one of them.

R. BRONSON.

Birmingham, Huron County, Ohio.

[From the Mechanic & Farmer.]

TEMPERANCE.

The following letters were written in answer to inquiries, proposed by a Committee of the Bangor Temperance Association, to gentlemen of science and experience in the medical profession. Other communications on the same subject may be published at a future time. The questions proposed were as follows:

1st. — Whether the *habitual use of cider* has any tendency, without the aid of other intoxicating liquors, to form the habit of intemperate drinking.

2d. — Its influence in reproducing intemperate habits, which had been for a time abandoned.

3d. — Its influence upon diseases, and upon the general health of the community.

To Dr Mussey was also proposed the question, whether the alcohol of fermented liquors is set free, so as to set directly upon the system, or is carried off by the digestive process.

My Dear Sir, — In reply to your inquiries, I may say,

1. That we have no evidence whatever, that alcohol, in any form, or taken under any variety of admixture, is capable of being digested or converted into nourishment.

2d. That it is capable of passing into the blood and existing in it in the state of alcohol, and passing out again in the same state, along with watery

vapor — in so far as we can judge from the flavor of the breath, and the perspirable matter of the skin, when abundant. I bled a drunkard last Saturday, whose blood, as well as skin, had distinctly the alcoholic color.

This odor exists in the breath of the wine, cider and porter drinker. Every fact we possess on this subject goes to prove that alcohol is a poison — that it is always injurious to the machinery of life, when habitually taken — and that, when used as a medicine, it operates like other active medicines, which are poisons, by making a temporary impression, unhealthy in itself, but which may supplant the impression made by the disease, and then be made to subside, by withdrawing the stimulus which caused it.

That cider, wine and beer can bring back the relish for distilled spirit, in a reclaimed drunkard, is certain. A glass of cider, beer or wine, has brought back to sottishness and destruction, many a man who seemed to have been reformed. A man now walks our streets with a red face and glassy eye, who abstained from strong drink for three years — who is a member of our Temperance Society, and drinks no distilled liquors, and whose appetite was resuscitated by wine and beer, and whose destruction is now regarded as almost certain. He is said to have taken more than 20 glasses of wine last Friday.

There cannot, I think, be left a reasonable doubt that as much mischief to health, results from the use of any kind of fermented liquor, as from distilled spirit equally diluted with water. Indeed, the strong tendency to disorders of the joints, as gout, and what is called chronic rheumatism, or neuralgia, in the drinkers of wine and beer, and to apoplexy and dropsy in beer drinkers, would induce me, if I *must* drink any given amount of Alcohol in a given series of years, to prefer distilled spirit to any sort of fermented liquor.

It is the alcohol in fermented liquors which causes man to prefer them to water, and doubtless the only reason why deep drunkenness is not as common in communities purely wine or cider drinking, as in those who employ chiefly, or wholly, distilled spirit, is, that the alcohol cannot be had in a state so concentrated. Fewer drunkards, perhaps, are made by cider drinking, than by the use of wine — at least, some kinds of wine; and it is understood that pure wine made from rich grapes, contains from 10 to 15, or more, per cent, of Alcohol, while the Alcohol in cider ranges from 6 to 10 per cent. — It will be perceived that 10 per cent. of Alcohol will make wine or cider of the same strength with a liquor composed of one part of proof spirit and four parts of water.

How can there be a drink so good as water?

We have a plenty of evidence from fact that it is better and safer than any other. It seems to have been made just right at first, and if, for some thousands of years, mankind have been in vain attempting to make it better by various additions, it may be safely predicted, that as many more thousands of years will roll away before their efforts will be followed with better success.

I believe that something like a reply to all the questions is contained in the foregoing remarks.

With much regard, yours,

R. D. MUSSEY.

BURN YOUR COAL ASHES.—Mr Editor:— I have always regarded the statement that there was any thing combustible in anthracite coal ashes, as a mere whim; and I have been lately induced to try the experiment, more to prove the fallacy of the notion than from any expectation of a successful result. But "I give it up." In these hard times, perhaps some of your readers may be disposed to try the experiment; and without attempting an explanation of the thing, I will briefly state the method and result of my own trial: Before making the fire in the morning, or when wishing to replenish it, I stir the ashes and fine coal thoroughly out of the grate, leaving in the grate all the coal that will not fall through — add enough fresh coal to make the fire, and when it burns freely, cover it about an inch thick with the fine coal and ashes mixed together, and wet with as much water as they will hold — and as that burns out, put on another coat. *Possibly* this cannot be done in open grates where there is not much draft; but a fair trial will, I think, convince the most sceptical that there is much that is valuable in the ashes which are ordinarily thrown into the streets. Many will undoubtedly cavil, but let the candid

TRY.

The New York Commercial Advertiser of the 18th ult. states, that within the three preceding days twenty thousand, five hundred bushels of German wheat had been sold in that city at from \$2 to \$2.50 per bushel.

DISGRACEFUL.— We learn from statements made in the New York papers, that 150,000 bushels of Grain, is taken monthly from that market for distillation. In this way our meat doth become our poison. We have noticed in some of our exchange papers, a call for a meeting "to consider the causes of the present high prices of bread stuffs." Is the above a small consumption; and for an article highly necessary for the well-being of the community, especially the poor laborer, and conducive to the happiness of wives and children, of inebriated husbands?

Perhaps this question will be answered in the deliberations of that meeting.

AGRICULTURAL SURVEY OF THE COMMONWEALTH OF MASSACHUSETTS.—We have been informed, and are much pleased to learn, that a Topographical Survey of this State, with particular reference to its Agriculture, under the sanction of the Legislature, is in contemplation. Surveys of this kind have been accomplished in Great Britain and Ireland, and the results have been very useful and interesting. Almost every cultivator has some improvement, or peculiar mode of tillage, some new or improved seed, plant, fruit, breed of animals, mode of treating their diseases, some new and superior implements for facilitating and adding efficacy to labor; something peculiar in his practice of the art of husbandry, which, if generally known, would be generally adopted, and prove beneficial to every individual of the great family of man. The knowledge derived from actual survey, sanctioned by ocular demonstration, and correctly reported, could have none of the disadvantages attributed to *book farming*. It would be the results of experience, communicated, for the most part by men who practice what they communicate, and who cannot afford to practice incorrectly.

In carrying into effect a survey of the kind alluded to, much — almost everything would depend on the agricultural knowledge and judgment, as well as industry of the person or persons to whom the surveys may be entrusted. It would be easy to accumulate masses of matter, as flat, stale and unprofitable as the figures in the calendar pages of an old almanac, but if the inquirer knows what has been in use, and is capable of judging of what might be found useful in rural economy, mines of informaton might be explored, more valuable than those of Golconda or Potosi.

In order to obtain valuable results to the researches, said to be in contemplation, a *system* should be pursued as regards objects of inquiry. In Great Britain, the following course, or something similar, was usually adopted:—

SURVEY OF MIDDLESEX.

Middlesex is part of the north side of a vale watered by the Thames, and contains 179,200 acres, exhibiting a great variety of agriculture.

1. *Geographical State and Circumstances.*

Climate—Healthy; warmer near London, from the fires kept there. Stationary winds from S. W. and N. E. In spring, frost in the hollows, when none on the hills, the thermometer has been as high as 83°, and as low as 6° below zero.

Soil.—By long continued manuring, the surface soil almost every where looks like loam.

Surface—Gently waving; highest towards the north; Hampstead 400 feet above the level of the sea, &c.

Mineral Strata.—1. Cultivated surface. 2. Gravel of Flints, &c. Water: Abundant and excellent. The Thames falls about 24 feet in ten miles. Mineral waters, at East Acton, Hampstead and Bagnige wells. Fish caught in the Thames: Sturgeon, Salmon, Tench, &c.

Spring water found at various depths, from 5 to 300 feet; the latter the depth at Paddington.

2. *State of Property*.—Estates generally under the care of attorneys and badly managed. Tenures: much freehold, considerable extent of copyhold, some Church, College and Corporation land.

Then follows: 3. Buildings; 4. Mode of occupation; 5. Implements; 6. Enclosing; 7. Arable land; 8. Grass lands; 9. Gardens and Orchards; 10. Woods and Plantations; 11. Improvements; 12. Live Stock; 13. Rural Economy; 14. Political Economy; 15. Obstacles to Improvement; 16. Miscellaneous Observations, 17 Means of Improvement.

Other topics of inquiry might be added to, or substituted for some of the above mentioned; and, perhaps, circular letters containing queries relative to such points of information as are thought of the greatest consequence, might be sent to intelligent cultivators, in the towns about to be visited for the purposes of Agricultural Surveys; &c. By such and other means which will suggest themselves to practical and ingenious cultivators, a mass of information may be elicited which will be of a value, scarcely to be overrated by the most sanguine anticipations.

THE FARMING INTEREST AND THE SURPLUS REVENUE.—Under this head, the American Farmer gives an article, recommending the several States to establish Pattern Farms, Agricultural Schools, General State Agricultural Schools, and County Societies.

“After viewing and reviewing the subject, in all its various phases, we have come to the conclusion, that a better disposition of a *part* of the revenue, could not be made; and that like the seed sown of old, it would increase a hundred fold.

“America at this moment presents a curious aspect to the world. Hitherto, from her surplus products, she has been able to supply the old world with a large portion of their bread stuffs, but owing to the disastrous results of the season the last year, she is now almost dependent on the transatlantic grain growers, for her daily bread. Such being the case, does it not behoove those whose province it is to superintend and promote the concerns of the national husbandry, to essay a remedy for the existing evils. If it should be asked, would the organization of the agricultural institutions, we speak of, prevent the depredations of the fly, and stay the elements? We answer, if they did neither one nor the other, the happiest effects would result from their existence. While the two first, would tend to enlighten the agricultural community, the two latter would excite a spirit of emulation and generous rivalry, that could not fail to be productive of an immense sum of public and private good.”

AGRICULTURAL PAPERS IN MAINE.—Maine can now boast of a trio of agricultural papers, equal to any in the country; and we are happy to add that her farmers

seem to understand their value, by tendering them a hearty and liberal support.

The *Maine Farmer*, is published at Winthrop, and ably conducted by Dr. Holmes, a practical cultivator, and a scientific man. His correspondents are numerous and of the right sort, giving valuable statements of improvement and experience, in a plain and perspicuous manner.

The *Yankee Farmer*, is published at Portland, S. W. Cole, Editor, and commences its third volume, with an improved typographical appearance, and changed from a semi-monthly to a weekly paper. The Editor is industrious, and successful in his endeavors to present to his readers an interesting sheet. The selections and editorial matter are alike judicious.

The *Farmer & Mechanic*, John S. Sayward, Editor, published at Bangor, is devoted as its name indicates, and differs somewhat in plan from the two first named papers, but no less useful or interesting.

Though the establishing of these papers has had the effect to withdraw subscribers who live in that section, and who very properly preferred to subscribe for local papers, from our list, we gladly hail them, and wish the in all the prosperity they deserve.

LARGE HOGS.

Big Hogs.—David Smith, of Hadley, has slain five hogs, the whole weight of which exceeded twenty-one hundred! One fellow had grown so corpulent about the face that, literally he could not look "beyond his eye-lids!"—*Northampton Cour.*

Mr Cornelius Husted, of Pine Plains, in this county, fattened this fall, a "lady pig" and 11 "blooming responsibilities," the weight of which was twenty-four hundred and thirty-seven pounds! If Northampton can produce a swinish family having more *weight* in community than this, we will give it up, and say nothing about one of our Duchess county pigs, which had grown so fat, that—would you believe it?—his mother did not know him!—*Poughkeepsie Tel.*

LARGER STILL.—Messrs Editors,—In order to sustain the credit of old Duchess, I enclose you the weight of 11 hogs, which I sold to Mr Eli Mygatt, merchant of New Bedford. Their weight was as follows: 350, 322, 354, 387, 391, 400, 448, 453, 459, 496. Aggregate weight 4542 pounds; average weight 413 pounds. The hogs were 1 year old in June last. ALBRO AKIN.

Quaker Hill, Dec. 26, 1836.

Ibid.

There were yesterday brought to this market, by Mr Nathaniel Brown, of Scituate, nine hogs, raised by him the present season, weighing in the aggregate after being dressed, 3443 lbs. averaging a fraction less than 383 pounds each. The largest weighed 460 pounds. They were purchased by Messrs Ward & Work, and J. Florer, of the Old market.—*Prov. Jour.*

We have given above the utmost that Hadley, "Old Duchess," or Scituate can boast of, and now give them a touch of what Southboro' can do.

LARGE HOGS.—Joseph Jennison of Southboro', Ms. has fattened and brought to Market this season, two Hogs 18 months old, weighing 629 lbs. and 557 lbs., which he sold for 13 cents a pound, realizing the sum of \$154 18 Pre.ty fair business this!

SNOW STORM.—Last Saturday the most severe storm that has been experienced this winter, visited us, and the quantity of snow fell is about a foot. "It is an ill wind that blows nobody good," says the Advocate of last Monday. "The wind which has been steady at the North-west, for the last 20 days, veered on Saturday to accommodate the storm, and 20 or 30 vessels laden with Grain and Flour, which have been hovering about our coast, unable to get in, arrived. The price of flour is reduced \$1.50, making the speculators look blue. Flour has been \$3.00 higher in this market, than in N. York!" We continue quotations this week.

Our readers will be gratified to learn that the Rural Library, projected last January, by S. Fleet, will be issued in a short time. It is a monthly work; and its object is to furnish the public with a cheap and convenient edition of the best works on Farming and Gardening, now extant, and to republish all English publications, as fast as they are issued from the press. Thus affording for \$3.00, what, in another form, would cost twenty or thirty dollars. One volume of the Rural Library will form a complete Library of itself. Published by S. Fleet, 51, Barclay Street, New York.

SHIP BUILDING.—The number of ships built in the United States last year was 957,—comprising the following classes: 88 ships, 94 brigs, 497 schooners, 180 sloops, 88 steamboats. The tonnage of which amounted to 119,330 tons.

BRIGHTON MARKET.—MONDAY, Jan. 23, 1837.

Reported for the New England Farmer.

At Market 400 Beef Cattle, and 790 Sheep—about 50 Beef Cattle unsold.

PRICES.—*Beef Cattle.*—About last week's prices were obtained for a like quality, and we quote to conform, viz. extra, \$7 50; first quality \$6 75 a 7 25; second quality \$6 00 a 6 50; third quality \$4 75 a 5 75.

Sheep.—We noticed lots taken at \$3 50, 4 25, 4 50, 4 66, 5 12, and 5 88.

Swine.—None at Market.

SEEDS FOR COUNTRY DEALERS.

Traders in the country who may wish to keep an assortment of Genuine Garden Seeds, for sale, are informed they can be furnished at the New England Farmer Office, Nos. 51 and 52 North Market Street, Boston, with boxes containing a complete assortment of the Seeds mostly used in a Kitchen Garden, on as favorable terms as they can be procured in this country, neatly done up in small papers, at 6 1-4 cents each—warranted to be of the growth of 1836, and of the very first quality. A liberal discount will be made to dealers. Ornamental Flower Seeds will be added on the same terms, when ordered, as well as Peas, Beans, Early and Sweet Corn, etc. Orders should be sent in early. Catalogues supplied gratis. Jan. 18.

LINSEED OIL MEAL.

The subscribers are now ready to supply Farmers and Stable Keepers with the above superior article for feeding horses, cattle and swine the quality and cheapness of which has been fully tested by farmers in the vicinity, and stable keepers in the city, to whom reference will be given.

The Linseed Oil Meal is used generally as a substitute for corn meal, and is mixed with bran, or any other food having little nourishment, or with cut hay and bran for horses; and is believed to be as cheap food as corn meal at seventyfive cents per bushel.

The price of the above is thirty dollars per ton, delivered at the mill in Medford, thirtytwo dollars in Boston. Apply at No. 10 Commercial wharf, or in Medford at the mill.

Nov. 23. **GEO. L. STEARNS & CO.**

GARDENER WANTED.

One who thoroughly understands his business, particularly greenhouse culture, will find employment, by addressing **MARSHALL P. WILDER, 3 Central Wharf.**
Jan. 11.

TREES.

Our customers will please take notice, that the season for transplanting Trees is approaching. All those who intend to order trees, are requested to forward their orders early. The first that comes are served first. Catalogues will be supplied gratis on application. Direct to **JOSEPH BRECK & CO.**
Jan. 13. **New England Seed Store.**



FARM FOR SALE IN WESTBORO.

Thirty mile from Boston and one mile and a half from the Boston and Worcester Railroad Depot on the Road leading to Hopkinton Springs, and within twenty minutes ride of either place. Containing forty-two acres of land under a high state of cultivation, with a never failing stream of water, running through the same—2 good houses, and other out buildings all in good repair. Also a large granite quarry easy of access. The granite is of fine color, works well, and can at small expense be landed in Boston. Said farm is pleasantly situated and well worthy the attention of gentlemen in pursuit of a pleasant country seat or a farmer wishing a small but good farm. For a person who would wish to accommodate families visiting the Springs, this stands unrivalled. Said farm will be sold low if applied for immediately, to **NAHUM HARRINGTON, Esq. Westboro,** or **HENRY WHITMORE,** on the premises.

Also one containing eight acres, with a new house and other out buildings suitable for a mechanic, on the same road with in one mile of the village. Apply as above. Dec. 23

\$50 REWARD.

An Irishman, who called his name James White, hired of the subscriber, on Tuesday, the 17th instant, a large brown mare, 3 years old, short switch tail a very long and straight back. Her natural gait is about eight miles the hour. Also a C spring chaise, with drab lining, side lights and lamp sockets; the body of a brown color, the maker's name under the cushion, (Ballard & Parker, Framingham.) The harness is brass mounted, with a long flat water hook on the saddle, and brass front piece on the bridle. He was to go to Dover, Mass. and to return the same day. Said White is about five and a half feet in height, and has small weak eyes. He had on a blue suit, and a light colored overcoat. He was about 25 years of age. As he has not returned, \$25 will be paid for information of the above property, and \$25 for the man.

PERKINS BOYNTON, Charlestown Street.

Boston, Jan. 21, 1837.

BRIGHTON NURSERIES.

For sale, 20,000 *Morus Multicaulis*, or Chinese Mulberry Plants, warranted the true and genuine kind. Orders addressed (by mail) to Messrs. **WINSHIP, Brighton, Mass.,** for Mulberry, Fruit and Ornamental Trees, Shrubs, Creepers, Herbaceous Perennials, &c &c. that are cultivated in any Nurseries in the United States, with a first rate collection of Green House Plants, will receive prompt attention, and, if required, forwarded to any part of the Union.
Brighton, Jan. 18, 1837.

PRICES OF COUNTRY PRODUCE.

		FROM	TO		
APPLES,	barrel	1 75	2 25		
BEANS, white,	bushel	1 75	2 25		
BEEF, mess.	barrel	14 25	14 50		
No. 1,	"	11 75	12 25		
prime,	"	9 00	9 50		
BEEFWAX, (American)	pound	28	30		
CHEESE, new milk,	"	9	13		
FEATHERS, northern, geese,	"	56	60		
southern, geese,	"	52	56		
FLAX, American,	"		9 12		
FISH, Cod,	quintal	2 25	3 00		
FLOUR, Genesee, cash	barrel	10 00	13 25		
Baltimore, Howard street,	"	12 25	12 50		
Baltimore, wharf,	"	11 75	12 00		
Alexandria,	"	11 75	12 00		
GRAIN, Corn, northern yellow	bushel	1 12	1 15		
southern flat yellow	"	1 09	1 10		
white,	"	1 08	1 16		
Rye, northern,	"	1 50	1 55		
Barley,	"	90	1 00		
Oats, northern, (prime)	"	65	70		
HAY, best English, per ton of 2000 lbs	"	22 50			
best English, new	"	22 50	25 00		
hard pressed,	"	20 00	21 00		
HONEY,	gallon	45	50		
HOPS, 1st quality	pound	9	10		
2d quality	"	7	8		
LARD, Boston, 1st sort,	"	16	17		
southern, 1st sort,	"	15	16		
LEATHER, Philadelphia city tannage,	"	30	31		
do country do.	"	24	27		
Baltimore city do.	"	27	29		
do. dry hide	"	21	23		
New York red, light,	"	24	25		
Boston do. slaughter,	"	21	23		
do. light,	"	19	21		
LIME, best sort,	cask	1 30			
MACKEREL, No. 1, new,	barrel	9 50	10 00		
PLASTER PARIS, per ton of 2200 lbs.	cask	3 00	3 12		
PORK, Mass. inspect. extra clear,	barrel	30 00	31 00		
clear from other States	"	27 00	30 00		
bone, middlings, scarce.	"				
SEEDS, Herd's Grass,	bushel	3 00	3 12		
Red Top,	"	85	6 00		
Hemp,	"	2 75	3 00		
Red Clover, northern	pound	14	17		
Southern Clover,	"	13	15		
SILK COCOONS, (American)	bushel	2 75	4 00		
TALLOW, tried,	lb.	9	10		
WOOL, prime, or Saxony Fleeces,	pound	85	1 30		
American, full blood, washed,	"	65	70		
do. 3-4ths do.	"	60	65		
do. 1-2 do.	"	55	58		
do. 1-4 and common	"	50	55		
Northern pulled.	{	Pulled superfine,	"	65	70
		1st Lambs,	"	55	60
		2d do.	"	40	45
		3d do.	"	30	33
Southern pulled wool is generally 5 cts. less per lb.					

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	14	15
southern, and western,	"	13	14
PORK, whole hogs,	"	11	12
POULTRY,	"		16
BUTTER, (tub)	"	22	23
lump	"	23	25
EGGS,	dozen	24	25
POTATOES,	bushel	50	75
CIDER,	barrel		

FESSENDEN'S SILK MANUAL

AND PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture and Rural Economy.

VOL. II.

BOSTON, FEBRUARY, 1837.

NO. 10

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BOSTON, FEBRUARY, 1837.

THE MULBERRY PATCH AND COCOONERY.

Extract of a letter, dated Aug. 4, 1836.

‘From the seed of the CANTON Mulberry, presented me in May 1834, I have obtained a number of trees. The last winter was so severe, that the stalks were killed down to the hard wood, but this summer the branches have started from the roots and grown over four feet in height.

‘I fed my worms upon the Chinese or Canton Mulberry, and some of the white. Ten of the cocoons before stifling, weighed one ounce, at which rate 1600 would make a bushel.

‘I adopted a new plan, or new to me, for the worms to wind their cocoons. I made a frame of lath, (the size of the table on which the worms were fed) one and four-tenths of an inch wide, six and three-fourths of an inch high. The outside I covered with millinet, and also the inside, to within one inch of the bottom of the frame.

‘The worms, when ready to rise for winding, would go up between the two pieces of millinet, and suspend themselves in the centre, between the two pieces of millinet. The cocoons were more perfect, much cleaner, and more easily collected than formerly.’

REMARKS.—Our correspondent may preserve his Chinese or Canton Mulberry from future in-

jury of the winter, by heading down the tree to two or four buds above the roots, slightly covering the stumps, and may also cover the branches cut off, either in a dry place in the open field, or remove to a dry cellar and there cover with dry earth, to be used for cuttings the next spring, or he might take off the side branches to one or two buds of the main stalk, to be used as short cuttings, and lay down the main stalk, with or without a root, covering the same with about two inches of earth, from which shoots would start so early next spring, as to produce abundance of vigorous shoots, with large roots, and afford abundance of foliage for worms the same season, and might be used with advantage to the plant—in this there is no mistake.

We think favorably of the method he adopted for the worms to spin the cocoons, which is about as neat and convenient as the mode used in China—when millinet is not at hand, the whole might be made with thin lath. We think the method of feeding on hurdles made of twine will give way to the above or a better mode. Even plain shelves or boards are preferable. The Chinese feed on oval trays made wholly of bamboo, with a rim of one or two inches to keep the worms from falling off, and of sufficient size to contain 50 to 100 worms separate from each other, and might be made of thin lath—square, and of a size to be easily handled, removed, cleaned, and set on racks. From a gentleman to whom the plan of our correspondent has been communicated, we are expecting an improvement or better plan of feeding which, should it be made public in season, will be communicated with pleasure.—*Northampton Courier.*

The Shakers have fifteen societies in the United States and about six thousand members.

TO FARMERS AND MECHANICS.

It is well known that the readiest way to kill trees by girdling, is to make the cutting high up the tree. But in cutting over timber land, if the intention is to have another speedy and thrifty growth of timber, the trees should be cut close to the ground, and then vigorous sprouts will start in abundance, and not be likely to be broken by winds or by cattle browsing, as when cut in the usual height of 10 or 12 inches. The sprouts can be thinned out to any desirable distance, to admit the air and sun. The best time to cut for timber is when the sap is down, in mid winter, say December and January. Timber for fencing posts will last much longer by setting that end in the ground which was uppermost as it grew. Trees growing on high, dry and open land are tough — have less sap, and are more solid than such as grow on moist land or swamps. Elm and beech are good and durable timber to be laid under water, and the elm is said to hold a nail under water better than any other timber. Some timber, as the oak, chesnut, and maple decay first internally or at the heart. Not so with the yellow locust, red cedar or white mulberry. These are probably the best timber known for fencing posts. In the scale of durability the yellow locust has the precedence — red cedar the second, and white mulberry the third. Yet many contend that the white mulberry, for fencing posts, are inferior only to the yellow locust. Aside therefore from feeding silk worms with the foliage of the white mulberry, the attention of the farmer is directed to set the white mulberry around the borders of his pasture and other lands, and to cover some of his waste places with the yellow locust, not only for fencing posts but for ship timber. White wood and walnut are tough, and useful for many purposes, but the heart will be brittle.

In order to preserve timber from cracking while seasoning, it is recommended to hew or saw out the timber for the particular purposes wanted, and laid in the *hay mow* when the hay is carted in, and as the hay is fed out, the timber will be found better seasoned than by any process of seasoning by steam, or heat in a dry house, and to prevent cracks. This mode of seasoning is recommended to carriage makers when they wish to have a little timber seasoned for some choice work. House joiners also would find it convenient to ensure some seasoned stuff for early spring work. But no mechanic could be more benefitted than the cabinet maker.—*Northampton Courier*.

GREAT MEETING IN PHILADELPHIA.

We have with pleasure examined the Report made at the meeting in Philadelphia, on the subject of silk culture. The committee have no

hesitation in saying that the Silk Culture in the middle and northern States at no distant period will rival the cotton and rice crops of the South—

That the quality of silk obtained from American cocoons is equal to that of Italy, and that it can be made at less expense in Europe, and that a large profit may be realised, even at the low price of three dollars per pound—

That 310 good cocoons will weigh a pound—

That when cocoons shall be raised in abundance, they may be afforded at 12 1-2 cents per pound, and that the raising of them even at that price, will be a profitable concern, and as lucrative to our farmers as the growing of cotton by the southern planters at 19 cents per pound —

That the present price or value of foreign raw silk is for

Bengal,	- -	\$4 25 to 6.
China,	- -	\$5 40 to 6.
Italian,	- -	\$6 to 7.

That although labor in American is much higher than in Europe — yet, when American ingenuity shall be as faithfully applied to the structure and improvement of silk machinery as it has been to the construction of cotton and woolen machinery, then we shall more than compete with or rival European manufactures, especially as the articles we shall first bring into market will principally consist of plain staple goods, such as stuffs for vestings, sewing silk, plain ribbons, pocket handkerchiefs — the machinery for which need not cost over one eighth the expense of machinery for a cotton factory, to turn out the value of goods producing an equal or even greater profit. And when made by power loom, and of American silk, may yield a profit of 25 to 30 per cent.

The amount of sewing silk used annually in the United States is amazing; and to manufacture even enough of this article to supply the demand, capital to almost any amount could be profitably employed, and with only little expense of machinery.

REMARKS.—We give our unqualified approbation of the sentiments embodied in the Committee's Report. It is worthy of the perusal of every silk grower in the United States and every friend to its prosperity. That the manufacture of silk at the North will yet become as important to us, as the cotton and rice at the south, we verily believe.

The superiority of American silk is acknowledged by the best judges. Silk made in a high, northern latitude is always considered superior to that grown in southern climes. This fact is well established in China. The dealers say that in Canton, silk grown in the northern districts is uniformly 20 per cent higher than that grown in the most southern districts.

It is confidently believed that silk will yet be grown and manufactured in America at less expense than in Europe, and that we shall export not only the raw material, but the staple article made from it, at a good profit.

We think that the raw silk may yet be made at a price even less than three dollars by the pound, probably at about two dollars.

The people of Massachusetts, under the protection of government or State bounty, are privileged above most others, being allowed one dollar for every ten pounds, or ten cents per pound for all cocoons by them raised. Also 50 cents for the reeling of every pound, and 50 cents for the throwing or twisting of every pound — making two dollars bounty on every pound of sewing silk, nearly or quite enough to pay all the expense of raising the cocoons — reeling and twisting, leaving every pound of silk a clear profit to the grower.

The Philadelphia Committee allow 2480 cocoons to make a pound of raw silk. This is a generous allowance, perhaps a medium quantity. But worms well fed will yield cocoons, 2000 of which will yield a pound of silk. We are confident that good American sewing silk will fetch as much in market as the best Italian — our merchant tailors even prefer it.

What better profit can the yankee farmer desire, who, from cocoons of his own raising, can reel and make sewing silk which will readily sell at 10 dollars by the pound, and when he can take at least 100 pounds of silk from an acre set with Chinese mulberry? Let posterity, may let the year 1840 or '42 decide the question, and we think a few individuals will do it the next year.—*Ib.*

MULBERRY.

A dry, sterile sand is unsuitable; and a shallow soil on a foundation of clay produces leaves of bad quality. In low rich grounds, and extensive plains or prairies, near ponds and in the valleys of rivers, the mulberry tree indeed grows most vigorously, yet the leaves being more watery, though voraciously devoured, they prolong the labors of the insect by inducing weakness, and injure the quality of the produce. These grounds are alike exposed to the destructive frosts of winter and of summer: the moisture of the atmosphere in such situations causes the leaves to become spotted and to mildew, and the leaves thus infected, if given to the insects, are the sure sources of disease and of death.

Sunny expositions and the declivities of hills, those especially which slope to the south, east, or west. The cocoons of mountainous countries are

deemed superior to those of the plains; although not so large, they are usually of a whiter color. Plant the mulberry tree on the high uplands, and on the hills, for here they are neither exposed to suffer from the early and the latter frosts, nor are the leaves liable to become spotted or diseased from the mildew; and from these combined causes, the growth of the tree will be consequently prolonged for a double length of time.

Prepare the soil by suitable nutriment, to the depth of eighteen inches beneath the tree, and to a proper distance around. The roots of the mulberry tree strike downwards; other plants may therefore be profitably cultivated beneath its shade, which is not deemed pernicious, the whole ground being kept as a garden during the first years.

The climate of the countries bordering on the great northern arteries or rivers is in some degree unfavorable. The winds, which, unobstructed, follow almost invariably the general course of the valleys of these rivers, bring down alternately from high northern regions, and from other climes, a degree of cold, during winter, the most intense and destructive. On the best authority I am assured that the pear, and particularly the peach and the cherry, have during the last winters suffered partial destruction in the valley of the Connecticut, as far south as the country around the city of Hartford, and even still farther downwards and towards the sea. Even far below the city of Albany, on the Hudson or North river, the cherry tree particularly, and many other trees which are equally as hardy, and especially during all the period of their younger years, are, as I am assured, extremely liable to suffer death during winter, from the same destructive climate and causes.

The proper soils for the mulberry tree are "dry sandy, or stony." And trees growing on dry, sandy, or stony soils, and situated on the open plains, and on hills the most exposed to cold winds, will be found to suffer least of all from the destructive frosts of autumn and of winter. With all authors I must agree in recommending a soil of but moderate fertility, and least of all a cold, moist, and heavy soil on a clay foundation, or even a very rich soil; a dry soil on a friable subsoil, on gentle elevations or declivities, being the most suitable of all for the mulberry from China.—*Kenrick.*

In France, although they raise so much silk, they still import annually, to the amount of 43,000,000 francs of raw silk, or nearly one-third of all they consume, for the supply of their manufactures.

From the New England Farmer.

PLANTATIONS OF FORESTS AND OF TIMBER TREES.

OSAGE ORANGE, (*maclura aurantiaca*.) CLIMATE, SOIL.

I am induced at this time to write on the subject of our Forests and our Timber Trees, by an article which I lately saw in that excellent publication, "*The Cultivator*;" which is edited by Judge Buel, at Albany. In that publication he remarks that "*the Osage Orange is tender, even more so, than the Morus Mullicaulis.*" He then proceeds to state, as evidence, that *with him*, the Osage Orange had invariably been killed down every winter. His observations in regard to this tree were probably elicited by an article written by me, and which I saw republished in some of the public journals of Albany and elsewhere, concerning this tree, wherein I had asserted that the Osage Orange is hardy, as it had endured, uninjured, the rigors of the last seven winters, *near Boston*.

How shall we reconcile the truth of both these statements, which are so directly opposed, except it be by a reference to some very material difference of climate, between Boston and Albany, although both are situated nearly, if not precisely, in the same parallel of Latitude? This difference of climate, I shall shortly and briefly proceed to shew: stating also, all the material evidence on which my assertion was founded.

Here stand the trees of the Osage Orange, in a bleak and exposed situation, the living witnesses of the truth of my assertion. For so far as I can know, there are no others of any considerable size in the State, except only at the Botanic Garden in Cambridge. Both my trees stand on the hill where I reside — the one in a Northerly exposition, the other Westerly and Northerly. The one measuring seven inches in circumference, and the other eight inches near the ground. The one ten feet high, and the other eleven feet. Here they stand, and where they have ever stood since the spring of 1829, without any protection, and yet uninjured during all our late most unusually rigorous winters; and I invite any one to see them: the soil rather springy and loamy, the foundation a hard pan. My supplies of this tree have generally been very limited, as I always purchased most all for the supply of my orders; and I had never lost a tree by winter.

Yet having in December last, read the account and the sweeping assertion of Judge Buel, all which was perfect news to me, and reflecting that on some grounds of mine in a lower situation, I had a few thousands of these trees, which I had purchased last spring of Mr D'Arras of Philadelphia, and reflecting that these trees were at that time young, and but of a single summers growth, and being received and set out late in a bad summer, I concluded as the tree was yet very rare,

that prudence dictated caution. It was not till the present winter had set in, and the ground was hard frozen, that I caused horse manure, (a practice not unusual,) to be spread around their trunks and over the roots of all, leaving their whole tops quite exposed: as we know by experience, that even in this climate, the young trees of but a single summers growth, of the Cherry, the Quince, the Plum and the Pear, and some other kinds, require protection during the first winter, on a soil rendered defenceless by cultivation, and we never leave them exposed till the second winter, when, if strong and well rooted, they require no more protection.

The fact seems to be, that the climate of Albany is subject to extreme and killing cold during winter, from its position, which is quite unlike that of Boston. I have never sought particularly in our journals to ascertain the extreme degree of cold of that city, but only do recollect, that times have been named, when the thermometer had descended to 24° below zero, at Albany; and I think as low as 30° below zero, at Troy, which is but a few miles above Albany.

My attention was recalled to this subject, by Mr Douglas, an intelligent gentleman from Albany, who called on me last winter, who spoke of the excessive cold of the winters of Albany, when compared with ours, although both are in similar latitudes. Also, by a letter from Judge Buel himself, an extract of which is recorded in the New England Farmer for August, 1829, wherein he has stated as follows: — "The past winter has been dreadful to our Cherries, Plums and Pears. We probably lost 5000 in our nursery alone. The Peach and Plum blossomed poorly, and the fruit as well as that of the Cherry and Pear, have been almost totally destroyed by insects and by frost."

Again, last summer, and during two or three days while I sojourned at Hartford in Connecticut, I became acquainted with E. W. Bull, Esq. of that city, a most respectable and intelligent gentleman, and an accurate observer. He stated to his certain knowledge, that the whole valley of the north river, was another and different climate from ours at Boston, and subject to the most intense and destructive cold during winter, and especially above the Catskill Mountains. He mentioned, in proof, the evidence of Mr Wilson, who is the partner of Judge Buel in their extensive nursery establishment. Mr Wilson had stated to him, that they were nearly discouraged as to the cultivation of the Cherry tree, so liable were they to be destroyed by their winters. Mr Buel also stated to his own knowledge, that the whole valley of the Connecticut, from Canada downwards to the sea, was another and different climate from ours at Boston. He mentioned as evidence the destruction of the Pear, Peach and Cherry trees on his

own estates, within the limits of that city, part of which I witnessed.

I saw also in the summer of 1835, at Mr Lyman's, in Manchester, near the Connecticut River, where a whole nursery of Cherry trees of 3 or 4 years growth had been killed by the previous winter. Also, I received a letter in the spring of 1834, from Mr — Welles of Glastonbury, lower down the river, stating that in the preceding winter, many of his large bearing trees of the Apple, Pear and Cherry, had been cut off and destroyed entire.

Mr Joseph Davenport of Colerain, Mass., and a critical observer, also has informed me, that during his frequent travels up and down the Connecticut river road, in 1836, he had observed in particular situations in Northampton, that many of the Mountain Laurels, (*Kalmia latifolia*,) and also the Buttonwoods, had there been killed by the previous winter. Similar destruction he had also witnessed in various places along the road, on the west side, both above and below Springfield Bridge, in the Cherry trees, the Pear and the Apple, and particularly the Peach trees, whose destruction in certain situations was complete, caused by the severe cold of the previous winter.

This intense degree of cold, is caused by the position of the vallies of these rivers, which all run from the North, or in the direction from Canada due South, to the ocean. And the prevailing winds throughout the vallies of these rivers is seldom across the stream, but in their longitudinal direction, up or down. This direction they acquire by the reflection of the winds as they strike the sides of the hills and mountains, causing them to flow up or down the valley, over the extensive plains, and the surface of the waters, where they can pursue their course freely, without obstruction. These winds bring down during the winter, from high northern regions, and from other climes, a degree of cold the most destructive, and the climate of Canada let loose, escapes, finding free passage through these main channels.

The copious exhalations from these great rivers by day, descending by night on the hills, roll down by their superior gravity, descending and resting on all the low plains and vallies, causing also the destructive frosts of summer.

This may serve to account for the excessive cold which is experienced throughout the whole valley of the Connecticut River. At Windsor, Vt., the thermometer has during the present winter, fallen as low as 30° below zero. And at Northampton, two years since, it was observed as low as 33° below zero. Thus at Lancaster in this State, on the low plain, on the river Nashua, the thermometer was observed by Mr Breck, to descend, two years ago, as low as 35° below zero. This unusual and excessive cold produced a de-

struction alike extraordinary. Lancaster is situated on a very large and beautiful plain, hemmed in on two sides by hills, with an extensive opening to the North. Yet on the neighboring hills of Mr Wilder in Bolton, and but two miles distant, the thermometer indicated a climate of a far milder character during winter.

Franconia, in New Hampshire, is not very remote from the Connecticut, but on another river. This place is subject during winter, to a degree of cold the most excessive, from its peculiar position, and exposedness to the cold winds of the North, which here concentrate their forces between the gorges of the neighboring hills. During the present winter, the thermometer has fallen as low as 38° below zero, at this place, but this is not very uncommon there. In some other winters it has been observed to descend as low as 40° below zero. Our climate is modified materially by its proximity to the ocean and from various other causes. The climate of a country, and especially on extensive plains, may be much ameliorated during winter as well as summer, by plantations of Forest trees, particularly by those of the evergreen class. And I find that most foreign writers have explicitly enjoined, that all gardens should be screened from cold winds on the exposed sides, either by hills or by ranges of forest trees compactly arranged, but not so close but that every tree may preserve its branches entire from its summit to its base.

I would wish to call the attention of our landholders to the cultivation of forest trees, either for the purposes of timber or of fuel. I have often been struck with the appearance of desolation, which is exhibited in the aspect of our hills, whose bald summits form a prominent feature in the landscape, in all the older settlements of our land. The forests covering the summits of these hills, like the human hair which crowns the summit of the head, would constitute the greatest ornament of the country. Shorn of these, they are despoiled of their beauty. Travelling among the Islands of our coast last summer, and particularly over the Island of Nantucket, I was forcibly struck with the desolate appearance of the whole Island. — For the most part, not a forest or shade tree, was any where to be seen, even for the protection of the numerous herds of sheep, which there roam at large, exposed, without even the shelter of a tree, to the scorching sun of summer, and the cold blasts and storms of winter. Here they roam in winter and summer, devouring every shrub and tree that will serve as food, without protection. This Island was formerly covered with forests of the most luxuriant growth, an evidence that the soil is by nature fertile. These forests were once the protection of the soil, drawing as they did, their nourishment in part from the atmosphere, so far

from impoverishing they always improve the soil which they retain and by the protection they afford from the frost of winter, which sometimes destroys the herbage, leaving the naked soil exposed in summer to the scorching sun, and to be blown into the sea by the winds, as is actually the case there.

The price of fuel and of timber is fast advancing annually; and as soon as these new forests can be reared, a profitable and advanced sale would be found. The annual consumption of our innumerable steamboats on our great rivers alone, is prodigious, particularly of the most combustible kinds of fuel. In passing from New York to Providence, on board one of the boats, I found they consumed 25 cords of pitch Pine, during the passage of about eighteen hours, between those two cities, or at the rate of 4000 cords in 160 trips, or in a year. And the number of boats on all our great rivers and lakes which now amount to some hundreds, will soon be augmented to a thousand, and will consume some million cords of wood in a year.

Forest trees may be raised by sowing the thoroughly ripened seeds as soon as they are gathered from the tree; the smaller seeds but an inch deep or less, the larger seeds from 2 to 3 inches in depth. When a year old, transplant them into nursery rows pretty close, shortening the tap root, that they may throw out lateral roots, and chiefly that they may suffer less by removal at the final transplanting. Never prune off a single limb till the trees are 4 or 5 feet high, but only shorten occasionally, until the last or final transplanting, which may be done early, while the trees are rather small. In old countries, we are informed, that their waste lands and hills, even the most barren, rocky and inaccessible, are covered with forest trees, holes of suitable dimensions being dug through the sod.

Their modes and systems of planting, are various. In some places, oaks are first set at an extended distance: between these, other kinds are planted, as the Ash, the Larch, &c., all valuable timber trees, for other uses; and the intermediate distances, with another class, and between all, Ashes or other trees suitable for hoop poles, are set very thick, that the whole ground may be well covered; all these serve as a shelter by the mutual protection they afford. As soon as the last named are of sufficient size, they are cut out for hoop poles, and thus the first thinning is effected. After another and suitable period, another class are cut out, and thus the second thinning is accomplished; — and so on, until finally, the oaks alone are left to take complete possession of the soil. These last when fully grown, serve for the construction of their ships, bridges, carriages for cannon, and the use of their armies,

and for agricultural purposes, and for all other uses where great strength and durability is required. Even for the doors, wainscoting, or floors of their public edifices and private dwellings.

The system adopted in some countries where fuel alone is the object, is to cut over the whole ground complete every 20 years, then another growth of timber will start up anew; and the growth of wood and the increase will still continue about the same, while the capital which has been expended, is again recovered, and may again be applied to new use and purposes.

In Britain, timber as well as fuel commands a very high price, compared with the price of our own country. The Scotch Larch and the Scotch Fir, are trees eminently celebrated for the valuable timber which they afford, and also for their rapid growth, they even flourish when planted on the poorest ground. And the celebrated politician Lord Erskine, who is reputed also to be eminently skilled in all that relates to plantations of forest and of timber trees, has asserted from his own experience, that in that country, 400 acres of land set out during 20 years, with the Scotch Larch and Scotch Fir, will produce annually, an income of £10,000 sterling, or about \$44,000 a year. His plan was, to begin by planting 20 acres the first year, and thus to continue planting 20 acres every year, until finally, in 20 years, the whole 400 acres will be completely covered. And now the first 20 acres which were planted, are to be cut down and immediately replanted — and thus the same system is to be continued perpetually.

It must be confessed, that nothing like this great amount could be expected, or even hoped for, for a long time in our own country; yet ultimately, we must adopt these systems, — as our forests are rapidly diminishing; others must be planted ere long, to supply the demand for timber and for fuel. The subject of timber trees, I may reserve for another and future communication. The forests which cover the plains and the summits of the hills, are the natural protection and cause of the innumerable springs which arise on their summits or on their sides, as these springs are found to diminish or totally to disappear on the destruction of the forests. In regard to our Forests, as also in regard to our soil, the same system with us has but too generally been pursued, as has been practiced in all other new countries, from the first settlement of our country, down almost to the present day, namely, *to take all and to give none*. To exhaust the soil continually, and to restore nothing in return, is the general mode which is at first adopted in all new countries. To this cause, not less than to the late untoward season, and to the insufficient encouragement which is afforded to agriculture, may be ascribed the extraordinary spectacle and position

which we now exhibit to the world, of a nation wonderful for its energy, enterprise and industry, and possessing the finest climate on earth, compelled at this day to resort to foreign countries for some portion, even of the necessaries of subsistence. This state of things has been brought about in a great measure, by certain of our most barbarous laws, which are still cherished, having a most pernicious bearing on the prosperity of the husbandman.

WILLIAM KENRICK.

Nonantum Hill, Newton, Feb. 1, 1837.

SIZE OF FARMS.

We made some remarks a few months since relative to the proper size of Farms, endeavoring to show that the greatest profit is derived from farms of considerable size, or where division of labor could be adopted. It is our object at this time to show that farmers generally, by cultivating too much land, actually lessen their profits by losing the advantage of a division of labor; while, if they should cultivate a smaller quantity in a proper manner, they would in reality arrive at those advantages much more readily.

To make money by farming requires, *first*, as great an amount of product from crops as possible; *secondly*, that this be produced by as little expense or labor as possible; and *thirdly*, that as little capital as possible be invested. To arrive at all of these points together, it is necessary to raise large crops, to effect a division of labor, and use labor saving implements and machines, and till no more land than can be done to the best advantage. That this is to be effected by a course different from that generally pursued, only require an exhibition of facts to prove.

It will perhaps be generally admitted, that much larger crops than are usually raised, *may* be obtained by taking the necessary pains. If the expense of raising the same quantity on a small piece of ground is no more than raising it on a larger piece, the former would, of course, be the more profitable, for it would require less capital in land; but if it is in reality found to be less expensive, then it becomes doubly profitable. The question arises, what are the relative expenses and profits of the two methods, and if the practice of raising large crops is found to be most profitable, what is the amount of produce which we may reasonably expect from a given quantity of land. The best way to determine these points, is to look at what has already been done, to examine the experiments which have been made in this kind of farming.

Numerous trials have proved, that at least one hundred bushels of corn may be expected from an acre with proper culture; Earl Stinson's crop averaged this quantity for ten successive years; and much larger crops have often been obtained.

By the experiments of Gen. Barnum, he is confidently of opinion that by the method he employed in cultivating the potato, from eight hundred to 1000 bushels may be reasonably expected. Satisfactory evidence exists that five tons of hay per acre have been obtained; and no less than three tons should be calculated upon, when a proper system of farming is adopted. Repeated experiments with ruta бага have shown that with good culture, from 500 to 800 bushels may be obtained with certainty; and from the statement of others, as well as from our own observations, we are convinced that from 1200 to 1500 bushels of mangel wurtzel may be produced with equal certainty.—

Now, if corn is worth seventy-five cents per bushel, potatoes twenty-five cents, hay eight dollars per ton, ruta бага twelve and a half cents a bushel for feeding stock, and two and a half tons of mangel wurtzel worth on an average one ton of hay, as has been found by experiment; then the product of *twenty* acres may be considered as follows:—

5 acres of corn, 500 bushels,	\$375 00
8 acres of hay, 24 tons,	192 00
1 acre of potatoes, 100 bushels,	250 00
3 acres of ruta бага, 1800 bushels,	225 00
3 acres of mangel wurtzel, 4000 bushels, 40 bushels to a ton,	} 320 00
100 tons,	
	\$1362 00

The expenses of cultivating the land and securing the crops, judging from the experiments above alluded to, would be about as follows:—

5 acres of corn, \$20 per acre,	100 00
1 acre of potatoes,	50 00
3 acres ruta бага, \$20 per acre,	60 00
3 acres of mangel wurtzel, do.	60 00
8 acres of hay, cut and cured according to the best mode we have seen and described before.	} 16 00

Genesee Far.] \$286 00

TREATMENT OF MILCH COWS.

There is, perhaps, no part of the husbandry of our country so much neglected, as that which relates to the providing of provender for the milch cows on our farms. On many estates, even those of magnitude, the chief part of the food, if not the entire, which they get, are the blades, the tops and the husks of the corn, with an occasional gratuity of nubbins by way of a holiday feast. The consequence is, that if the winter be severe and protracted, there is nine chances out of ten, that every cow, long before spring arrives, is either dry, or so near it, that the milk she will give is not worth the trouble and cost of stripping, so that many farmers with half a dozen or more cows

have neither milk nor butter sufficient for the domestic uses of their tables, during the latter part of each winter, and by the time that the cold and bleak winds of March arrive, many of the cows are on the *lift*. How is it possible it can be otherwise? There is little or no succulent in the food we have described in its dry state, and consequently cows fed upon it, must, for the want of matter convertible into milk, cease to yield it. In every other country save our own, it forms a part of the business of every farmer or planter, to provide full supplies of nutritious food for his stock of every kind, and for those which comprise the dairy cows, especial pains and care are taken to provide a sufficient quantity of such roots as are heartening and succulent, so that by thus providing a substitute for the grasses of the pasture, or the soiling stalls or yards, his dairy, even through the dreary and inclement period of the winter, may continue to contribute largely to the comfort of his family, and to the increase of his fortune. No good farmer, then, will keep more cows than he can keep well, and in so keeping them, he finds his trouble rewarded, and has besides the satisfaction of knowing, that in thus acting he has fulfilled an obligation imposed on him by every humane consideration, and discharged a duty required by Him, who, in placing the beasts of the field in subjection to man, enjoined that he should extend towards them his kindest protection and care. We frequently hear gentlemen complaining of the difficulty of procuring such cows as will make profitable returns, and of the impossibility of keeping them to their milk during the winter. The reason is obvious. No cow, and we care not what her breed may be, whether she be of improved Durham Short Horn, the Devon the Alderney, the common cow of the country, or any other — we say no cow can be kept in the pail, unless you give her something which will both nourish her system and replenish her udder. To make a cow yield a liberal supply of milk through the winter, she should have in addition to full supplies of food, wholesome hay or fodder, at least half a bushel of roots of some kind, or an equivalent of cabbages or kale per day. And if the hay should be fed long, each cow should have, at least two days in the week, messes of chopped rye and cut straw, to be either steamed or mixed up with boiling water, and permitted to remain until it be fermented before feeding. The ambition of procuring fine breeds of animals of all kinds, is one worthy of every praise; but that of taking good care of what we have, is equally if not more laudable. Besides these considerations, the interest of every farmer is always promoted by feeding his cows well. If fed in the niggard manner we have described, their keeping, such as it is, is a dead loss to their owners; they make no manure worth

speaking about, and the animals themselves are comparatively valueless; and if kept generously through the winter, and sheltered from the weather, each cow will give her two gallons of milk per day, and make from four to seven pounds of butter per week, which latter should be set down as the profit, as the milk and cream consumed by the family will more than compensate for the feed. In addition to this, animals thus fed make three times the quantity of manure, and are always in a condition to command good prices. We have engaged in no speculative theories in what we have said, but have addressed ourselves to the common sense of the agricultural community in the hope that they will see the propriety of adopting some plan by which our object can be obtained.— *Western Adv.*

NEW KIND OF INDIAN CORN.

NEWBURY, JAN. 30, 1837.

MR FESSENDEN — DEAR SIR:— I send you a few ears of Corn, as a sample of a kind which I have raised for the two last years. It was brought to this town from Rochester, N. H. some four or five years since, by a Mr Clark, and is known with us by the name of the Clark corn. It has improved much since first introduced amongst us; it is principally ten and twelve rowed; at least three weeks earlier than the common kind, and will produce 3-4ths as much, planted in the common way; but if planted as it should be, not exceeding three feet apart each way, making about 4000 hills to the acre, the yield will be about equal to any kind we plant. It will weigh at least sixty pounds to the bushel, and will measure more from the ear when shelled than any kind I ever saw. One bushel of selected ears produced 1-2 bushel and 3 1-2 quarts; one bushel not selected 1-2 bushel and 2 quarts, making an average, at least of one bushel and 4 quarts, from two of ears. In 1835, I planted 1-2 an acre at the common distance, say 3 1-2 feet, land a gravelly loam, which produced more than forty bushels to the acre. In 1836, the same piece was planted about three feet distant, say 2000 hills, more than 200 of which were destroyed by worms and dry weather, still I harvested about 35 bushels of ears of sound ripe corn. Several others planted the same kind the past year, and obtained a good crop. We think it the best kind which has ever been introduced into this part of the country. A few bushels selected expressly for seed, can be had, if applied for, at the office of the New England Farmer, No. 52, North Market Street, Boston.

Yours, Respectfully,

DANIEL ADAMS, 3d.

Honey and milk is very good for worms, so is strong salt water.

RAISING WHEAT.

MR HOLMES:— I am pleased to find the people of this section of the country awake to the subject of raising wheat. In regard to the subject I will relate to you a little of my experience. I have followed farming for upwards of 30 years, and have generally raised my wheat from land that had been planted the year previous; but within a few years, I find that good wheat can be raised by a different method to a better advantage. In September, 1833, I broke up one acre of light loamy land (not by any means my best) which had been pastured three years with sheep, intending to plant it the next year with corn. The ensuing spring being cold and backward, I concluded to sow it to wheat. I accordingly spread seven or eight loads of old mellow manure, which I intended to have put into the hill if I had planted it with corn. I sowed two bushels of wheat on the acre of ground and gave it a thorough harrowing. It came up and did well. In the following December I thrashed it, and had 52 bushels of wheat—no mistake.

From the above I am led to make the following calculation. Wheat at that time was worth \$1,50 to grind into flour, the amount would be \$78,00, if the straw would pay for thrashing, eight dollars would cover all the expenses of growing it; this would leave me \$70,00. If I had planted this piece of ground with corn, I should probably have had about ten bushels (as it was killed that year by an early frost) worth \$10,00, with an expense of 12 or 15 dollars growing it.

Since the seasons have become so cold, and the corn crop so uncertain, I think farmers had better plant less corn, and sow more wheat, and what corn they do plant, manure the ground well, and instead of pasturing their sheep upon broken rocky mortgage land, as is frequently the case, put them upon some better land that they can plough once in three or four years. KENELEM MARSTON.

Waterville, Dec. 21, 1836.

[*Maine Far.*

POTATO BREAD.—“Seeing is believing;” as says the old adage. And so is *tasting*, as all will admit who try it. And if any one is in particular want of a subject to make the trial on, we advise him, especially if he has a family and can't cheerfully pay fourteen dollars a barrel for flour, and nine shillings for corn, and twelve cents for pork, to make trial of potato bread. “Bah! cries one; ‘tis heavy stuff—can't eat it any more than I can eat lead.” “Pooh!” says another; “I wouldn't eat potato bread—the poor may eat it, who can get nothing else!” Friends, don't be so fast. If you are not particularly circumspect, you may eat it unawares; for depend upon it, you would be puzzled to tell it from bread made entirely of flour. We speak from personal knowl-

edge. Our own “better half” has tried the experiment, and succeeded to a charm. Somewhat more than half of the bread was of potato, which was crushed after being boiled, and mixed with the flour. It rose quick, and when baked, came out “as light as a feather,” and sweet as the best wheat. The experiment has also been tried in the family of a friend, with a like result. We say then, if any body wishes to live in a frugal way and live well too, tug away at your potato bin as much as at your flour barrel, and snap your fingers at the speculators who would fill their pockets at the expense of yours.

P. S. Since writing the above, we have received from a friend, some very nice dough nuts, made of potatoes and flour, half and half. Try it, Ladies.—*Franklin Mer.*

WINTER FOOD FOR SHEEP.

Every farmer is aware, that one of the chief difficulties in the raising and management of sheep consists in preserving them through winter, without disease or loss. Hence every fact or hint in relation to their winter management becomes of the first importance. It is indispensably necessary that sheep should be kept in good condition in order to prevent disease; and it is a secondary point, yet one to which much attention should be paid, to make use of the cheapest kinds of food.

With regard to the quantity and nature of food, it should be such as to keep them in a strong, healthy state, and rather full of flesh, yet not partaking too much of *fatness*. This good condition even if maintained at considerably greater immediate cost, will be found by far the most profitable in the end; for independently of the constant danger of loss by death, when sheep are ill kept, they shear much less wool, and the future progeny is much weaker, in consequence of such imperfect management.

One of the most necessary requisites to be observed is constant and regular feeding. Sudden changes, from scanty to plentiful food, are highly detrimental, as is also the reverse. Perhaps the only exception to this remark, is the case of ewes rearing lambs, which require better feeding than in ordinary times.

The quality of the food is a thing of much consequence, and the quantity must be adapted to the quality. It is satisfactorily ascertained, that hay alone, is not adapted to keeping sheep in the best condition. Still less is it if they are not allowed a constant supply of water. But the intermixture of roots, and particularly mangel wurtzel, is found to produce an excellent effect. A very successful manager of sheep, whenever he feeds any kind of roots, or grain, to them, first gives them a foddering of straw in order to fill them, as he does not

consider the roots digest so well on an empty stomach. In order to be able to proportion the different kinds of roots, grain, &c. according to their nutritive qualities, it is necessary to know in what proportions those qualities exist in them respectively. The following table exhibits the results of the experiments of the distinguished agriculturalist De Raumer, on the effects produced by an equal quantity of several substances in increasing the flesh, tallow and wool of sheep.

	Increased the weight of the living animal.	Increased the wool.	Increased the tallow.
	lbs.	lbs.	lbs.
1000 lbs. potatoes, raw, with salt,	46 $\frac{1}{2}$	6 $\frac{1}{2}$	12 $\frac{1}{2}$
do potatoes, without salt,	44	6 $\frac{1}{2}$	11 $\frac{1}{2}$
do mangel wurtzel, raw,	38 $\frac{1}{2}$	5 $\frac{1}{2}$	6 $\frac{1}{2}$
do wheat,	155	14	59 $\frac{1}{2}$
do oats,	146	10	42 $\frac{1}{2}$
do barley,	136	11 $\frac{1}{2}$	60
do peas,	134	13 $\frac{1}{2}$	41
do rye, with salt,	133	14	35
do do without salt,	90	12 $\frac{1}{2}$	43
do meal, wet,	129	13 $\frac{1}{2}$	17 $\frac{1}{2}$
do buckwheat,	120	10	33
do good hay,	58	7 $\frac{1}{2}$	13
do hay with straw, without other fodder,	31	15 $\frac{1}{2}$	6 $\frac{1}{2}$

These results agree with those of De Dombale, and other agriculturists.—*Genesee Far.*

TOP-DRESSING GRASS LANDS.—An important fact in regard to this matter, has been communicated to us by an intelligent visitor, viz: that the same quantity of manure is twice or thrice as beneficial on *young* as it is on *old* meadow. Plants, like animals, if stunted or half starved when young seldom acquire great vigor or luxuriance afterwards; the organs of nutrition become adapted to the early supply of food, and cannot be readily enlarged, on its being increased in advanced age. Hence the advantage of employing rich soils for nurseries—of keeping young farm-stock well—and of applying manures to young grass. A gentleman top-dressed some grass lands at one, two, and three years old, and he found the benefit to the first, double what it was the second, and treble that shown by the third. The hint is one of some importance to husbandry, and we hope it will be improved upon. The rule does hold good in regard to animals.—*Cult.*

NOTICE ON THE BEET SUGAR.—Mr J. H. Butler has published a compendious manual on the culture and preservation of the sugar beet, and the mode of manufacturing sugar from it. We like

this "Notice," inasmuch as it is cheap, and any body can buy it; and its instructions are brief and simple, and the results of experience. Farmers who intend to turn their attention to the beet culture, will find it an assistant to their labors. It was compiled by Mr Church, of Northampton, who has resided several years in France, and while there gave particular attention to this branch of industry. Mr C. is the gentleman who introduced the steamboat into the Geneva lake.—*Franklin Mercury.*

AGRICULTURAL PROSPERITY.

Never since the first settlement of the country, were farmers in circumstances so easy and prosperous as the present time; and if they are not paying off their debts, improving their lands and buildings, and making provision for the education and settlement of their children, it is because they are indolent, or inattentive to their affairs. It is true some crops, in some parts of the country, have been less abundant than in former years;—but others have been more so, and it is believed, taking the whole into consideration, the fruits of the earth have not fallen much short of its average annual increase;—and as for prices of all kinds of agricultural productions, they are unprecedented in our history. Without detailing present prices, it may safely be stated, that farmer's produce, especially articles indispensable to the upholding of life, has advanced at least 50 per cent. within the last eighteen months; and it is fair to infer that their lands have advanced in the same ratio—for real estate, like stocks, rises and falls in market with the amount of income it yields, or with good management may be made to yield, its cultivator. If this be so, it follows that every farmer is actually worth at least fifty per cent. more than he was a year and a half ago, and more than he may suppose himself to be worth at the present time.

Though the causes which have produced this astonishing advance in the prices of farmer's produce, while those of the manufacturer have remained nearly stationary, may be concealed from his view; yet he may rest assured they are of such a nature as to warrant him in increased exertions in the cultivation of his farm, and product of such fruits of the earth as are necessary to sustain life. While the present disposition to exchange the labors of the field for those of the workshop, the factory and the learned professions continues—while the present mania for the construction of canals, railroads and other public works rages—and while the present tide of foreign population flows in upon us, the present disproportion between production and consumption will exist and prevent a material reduction in present prices.—Though agriculture is unquestionably the most

profitable business which is pursued under existing circumstances, yet many farmers are complaining about hard times. They claim that the present high prices afford them no facilities for the acquisition of wealth, and assign as a principal reason the high price of labor—but they forget that their labor is an important part of their capital, and that as it advances in value their capital is increased in amount. This remark, it is true, is more peculiarly applicable to practical farmers—men who labor with their own hands, and such are ordinarily the only men who accumulate wealth by agriculture.

As highly as we estimate the profession of an agriculturist, and as profitable as we believe the business to be at the present time, we would advise no man to engage in it whose hands are too delicate to handle the hoe without gloves. To insure the farmer success he must labor, more or less, with his own hands, and be capable of judging whether his work is well or ill done. He must also know whether his hired help perform that amount of labor which they are in duty bound to render him, and whether the results of it will leave him a profit after their wages are deducted. Gentlemen who have acquired fortunes by commercial and professional business, and who may be disposed to retire to rural life, will find much amusement in agriculture: but they must not be disappointed if they find but little profit. The profits of a farm are in proportion to the amount of labor bestowed upon it: and the farmer who performs it principally with his own hands and those of his family, generally grows richer and richer, while one whose hands are too tender to endure the rays of the sun, and whose children are too good to work, almost invariably grows poorer and poorer.—*Silk Cult.*

DOMESTIC MEDICINE.—The castors on a dinner table, are said, by a late London work, to be a kind of medicine chest containing drugs of great virtues. 1. Salt.—This is a decided cathartic in the dose of half an ounce. It is also a vermifuge in large doses. Criminals in Holland were formerly sentenced to live without salt, and became terribly afflicted with worms. 2. Vinegar.—This is refrigerent and diaphoretic, and applied externally, is moderately stimulant. If an overdose of soda has been taken, or if any other alkali, it is a certain antidote. 3. Mustard.—Mustard emetic is said to be infallible in the cholera; a mustard poultice is almost equal to a blister plaster. 4. Olive Oil.—This says the dispensaries, is “demulcent, relaxant and laxative.” It is an antidote against acrid poisons, and seems to be obnoxious to worms, killing them it is supposed, by stopping some of their breathing holes. Be-

sides, it relieves the pain occasioned by the application of pungent acrid substances to the skin. 5. Pepper.—This relieves diarrhœa and the relaxed sore throat. Peperin, the alkaloid extract from the pepper, has cured the ague in the hands of Dr Meli and others.

Experiments tried in a well or drill hole, 800 feet deep, at Montpellier, Vt., have shown that the increase of heat in descending, is at the rate of one degree for every 80 feet. Such an increase would indicate that in descending towards the earth's centre, at no very great distance from its surface, the heat must be such as to hold in a state of fusion, any body with which we are acquainted, and would seem to prove that the globe is in fact in the depths of its interior, a large mass of materials, heated to melting. How far the above experiment may go to account for the existence of the hot springs which are found in various countries, we leave it to the scientific to decide; one thing is certain, that whatever may be the state of things at the centre of our ball, people on its outside, are too often apt to get into hot water.

EXTRAORDINARY OPERATION.—Last week a young lady, the only daughter of one of our most opulent citizens, in endeavoring to pick a knot out of a thread with a fine needle, it broke and the pointed part flew with violence into her eye, where it penetrated to some depth, causing inconceivable agony. The most eminent physicians were immediately sent for, who essayed in vain to extract the needle, and finally gave it up. Dr. Seudder was then sent for, who first made an incision with a delicate instrument, and then, by means of a powerful magnet, drew the needle so far out that he grasped it with a pair of magnetised forceps, and in an instant it was out. The young lady, we are happy to learn, is now as healthy and happy as if nothing had occurred.—*Sunday News.*

VERMONT MANGENESE.—A gentleman of Chittenden, Vermont, writes to the Editor of a Windsor paper, that Mangnese is found very plentifully in Chittenden, and that this is the only bed in America from which it is obtained at present. — The owner of the bed has supplied the New York Market for two or three years past, and is furnishing several hundred tons for exportation to England this winter. Geologists, who have seen only such specimens of Mangnese as are generally found in cabinets of minerals, are invited to take a ride up to the mountains and supply themselves.

CALVES.—The following mode of rearing Calves, adopted by the Society, denominated Shakers, in Canterbury, N. H. was communicated in a letter from Francis Winkley, to Levi Bartlett, of Warren, N. H., and was published in the N. E. Farmer, in 1824; but such have been the changes since that period, in our subscription list that it would probably be new to many of our readers.

“We let calves that come in the fore part of March, suck a week or ten days, then take them from the cow, giving them a moderate allowance of new milk to drink till they have learned to drink it freely; then put in some skimmed milk; and we feed them wholly with skimmed milk, taking care to give it at about the temperature of milk taken directly from the cow, by heating a part of it and mixing it with the rest. Care should be taken not to scald the milk, when heated; also, not to give them any sour milk, for this will make them sour. The trough or vessel in which they drink their milk, should likewise be kept clean, and not suffered to become sour. We let the milk stand about twelve hours before it is skimmed; giving a calf at first about four quarts, night and morning; increasing the mess as need requires, till he is six weeks old, from which time till ten weeks old, he will require, perhaps about 12 quarts per day.

“When about ten weeks old, we begin to diminish the quantity of milk for about the space of two or three weeks, at which time we wean them. During the whole process, from two to fourteen weeks of age, calves should be well supplied with good hay, salt and provender, such as oats, wheat, bran and oil cake, ground fine.

“The particular advantages to be derived from the above method of treatment, are the following:

“1. It is much cheaper than to let them suck in the ordinary way; whereas it makes a great saving of cream for butter, and that without injuring the calves, if they are properly attended to.

“2. It prevents calves from moaning or pining, so much while weaning as they would otherwise do, when taken from the cows.

“3. It not only prevents the cows being injured in consequence of the calves biting the teats, but also prevents their holding back the milk from the milker, which often serves to diminish the quantity of milk afterwards.

“The only disadvantage to be found in the above method of treatment is, that it requires some more labor to feed them, where they thrive equally well in every respect as those do which are permitted to suck in the ordinary way.”

Cows which are expected to calve, ought to be lodged by themselves in some convenient place, under cover for a week or two before calving, as such care may be the means of saving the life of the calf, and perhaps of the dam also. In order that it may be ascertained what is the time when cows may be expected to calve, an

account should be kept of the time when each cow is put to the bull. The day and night after a cow has calved, she should be put under cover, her drink should be luke warm, and she should not be exposed to the dampness of the night.

Inflamed teats should be washed with two drachms of sugar of lead in a quart of water. Should tumors appear, apply a common warm mash of bran, with a little lard.

To prevent cows from sucking their own milk, it is said that rubbing the teats frequently with old and strong smelling cheese, is effectual.

The following prescription for drying cows, which continue to give milk till too near the time of their calving; or to expedite their becoming fat enough to be good beef, is taken from *Monk's Agricultural Dictionary*, an English work of established reputation.

“Take an ounce of powdered alum; boil it in two quarts of milk till it turns to whey; then take a large handful of sage, and boil it in the whey, till you reduce it to one quart; rub her udder with a little of it, and give her the rest by way of drink; milk her clean before you give it to her, and as you see need, repeat it. Draw a little milk from her every second or third day, lest her udder be over-charged.”

TURNIPS, CORN, POTATOES, &c.—Assuming that 600 bushels of Swedish turnips will grow upon an acre of ground which will produce thirty-five bushels of corn, and that six bushels of the Swedes will fatten as much as one bushel of corn, it will be seen that one acre in ruta бага will go about as far in making beef as three acres in corn, with the further advantage that the latter will cost four times as much labor in its culture as the former. We have given an instance of the Swedes yielding more than 1500 bushels to the acre, and the opinion of an intelligent feeder that two bushels are as much for feeding, as one bushel of corn. The mangel wurtzel, the carrot and the parsnip, may be all raised in field culture, at about the same expense as corn, and they will give as great a yield, and afford as much nutriment as the ruta бага. The potato, whose culture we are all acquainted with, should be made to yield 300 bushels per acre; and these afford a far more profitable food than grain. A bullock will consume from 120 to 240 pounds of ruta бага per day; but if full fed with this or other roots, they will consume but little hay, and have little or no occasion for water.—*Cultivator*.

MR HOUGHTON.—If any of your readers have horses that are inclined to dig holes in the stable floors by constant pawing and scraping, they may put a stop to the habit in the following manner:—Go to the wood pile or some other place, and get a stick of round wood, about four inches in diameter, and split it in two; take one of the pieces and nail it across the floor of the stall, about four or five inches in front of the place where the horses forward feet usually stand; nail the other piece on the floor, four or five inches forward of the first piece; each piece to be the round side up and flat side down. The horse will find pawing so inconvenient, that he will abandon the practice.—*Dedham Patriot*.

FEEDING CATTLE.

It has been ascertained that 1 lb. of oil cake, is as two pounds of hay.

200 lbs. of good straw of peas and vetches are equal to 100 lbs. of hay.

300 lbs. of barley and oat straw are equal to a 100 lbs. of hay.

400 lbs. of wheat straw are equal to a 100 lbs. of hay.

Wheat produces the greatest increase in the flesh of the living animal, though but little greater than oats, peas, wheat, rye, and hay mixed with straw, produce the greatest increase of wool; barley and wheat cause the greatest increase of tallow. As an average, grain generally gives about three times the increase in the flesh, that roots and hay do, when in equal weight; grain produces about twice as much wool as is caused by an equal weight of roots, and several times the amount of tallow, that is produced either by roots or hay. But as an equal weight of mangel wurtzel may be raised at an expense of less than one tenth of what is required for the production of most kinds of grain, the vastly superior economy of its use as food for sheep for every thing except fattening, will be at once perceived.

De Raumer found, that sheep ate with avidity, eight pounds per head of mangel wurtzel a day, intermixed with straw; during which time they drank one quart of water, and remained in good and healthy condition.

That of raw sliced potatoes, they ate with good appetite, at the rate of seven pounds per day, also with straw, and drank three pints of water in 24 hours. Also, remained healthy.

That they ate two pounds of peas per head daily, drank from two to three quarts of water, and remained fine and healthy. It was necessary to soak the peas to prevent injury to their teeth.

That wheat produced nearly the same results as peas.

That they do not eat rye readily, and it appears not well adapted for their food.

That of oats and barley, they ate about two and a half pounds per head daily, with avidity, did extremely well on it, and drank about 3 quarts of water in 24 hours.

That buckwheat produced excellent effects upon them, which they eat with avidity.

And that of good hay they ate four and a half pounds daily, and drank from two and a half to three quarts of water.

As a large number of fine-wooled sheep have been introduced into the country within a few years, it is absolutely necessary, in order to render them most profitable, that they be well sheltered during winter. In those countries in Europe which are most famous for the growth of fine wool, strict attention is given to this subject, and

sheep are not only sheltered in the night, but whenever the weather demands it during the day. It is said that on this depends in a great degree, the fineness and quality of the wool. Shreds, at least, should always be provided for the most hardy breeds of sheep; much more so then, ought they to be for the more tender, fine-wooled varieties. Henry D. Grove, of Hoosick, Rensselaer county, who has been uncommonly successful in raising and wintering fine-wooled sheep, says that shelter against the inclemency of the weather, "is almost as necessary to the health and good condition of sheep, as food itself, and for this reason stables for that purpose are of great benefit. Not only do sheep do much better, but it is also a saving of fodder and manure. The latter is as important as the former; for manure, properly applied, is money to the farmer; and it is well known that sheep manure is of the best kind. — These stables ought to be so constructed, as to admit of a great quantity of hay being put over head; and for this reason I would recommend a side hill facing the south, and a dry spot around it for their location. Each full grown sheep requires six square feet including racks. These ought to be so constructed as to have a manger attached to each, for the purpose of feeding grain and roots, and to catch the hay the sheep draw through the racks. The stable ought to be eight feet high at least, nine feet is preferable, and sufficiently ventilated. It is also necessary to have windows for the purpose of light. The difference between wool grown in a dark and light stable, is really surprising. In a dark one, wool does not get the brightness it has in a light one. Of this fact, I have witnessed the most surprising proof. Over head, the stable ought to be tight, that no fodder, chaff, &c., may fall into the wool, which reduces its value. The stables ought to be littered with straw from time to time, to keep the wool clean and add to the comfort and health of the animals."

We conclude these observations with the remarks relative to the importance of water and succulent food to sheep during winter, of J. Barney, Esq. of Philadelphia, whose experience and skill on this subject are well known. To a gentleman who visited him, he showed from 50 ewes, upwards of sixty lambs, all lively and brisk, with a loss of perhaps three or four. The gentleman observed to him that he had his shed covered with dead lambs, and asked wherein the secret of breeding lay. He answered, "you stuff your sheep with dry food?" "Yes, as much good clover and hay as they will eat," was the reply. — "You give them no water, but suffer them to go out in time of snow, and eat it as they are disposed to do?" "Yes." "Then their lies the secret. Your sheep fill themselves with hay; they

get no water; and they have not a supply of gastric juice to promote the digestion of the hay in the stomach; they cannot raise it to chew the cud; they lose their appetite; are thrown into a fever; and cannot bring forth their young, or they bring forth a feeble, starved lamb that falls off and dies on the first exposure to the cold and rain. On the contrary, I take care to provide my sheep with good clear water in summer and winter. I feed them regularly with hay through the winter, and give them ruta baga and mangel wurtzel every day. The ewes produce me one hundred and twenty per cent. in lambs. You cannot get along without ruta baga and mangel wurtzel.—*Genesee Farmer*.

CANADA CORN.—We consider it proper at this time to call the attention of the farmers in general—and particularly those who have suffered a loss of their crops from the unfavorableness of the past season,—to the yellow early Canada corn, which has been cultivated here with such success, as to leave little room for doubt as to its superiority in overcoming the difficulties to be encountered in our ever-varying climate. Five acres of this corn was raised the past season, by Mr Hatch of the Poughkeepsie Hotel, on his farm two miles below the village. It was planted the first of June last, has yielded sixty bushels to the acre, perfectly sound and in as fine condition as any we have ever seen. We understand that it was perfectly ripe by the 10th of Sept. and will generally come to maturity in about ninety days. The land on which it was raised was in good condition. Mr Hatch has already been applied to by 54 of our first farmers, for one hundred and fifty seven bushels of this corn for seed next year.—*Poughkeepsie Eagle*.

LIFE IN NEW YORK—It is easier, says the N. York American, to write about living in this city, than to find the means of living. Rents have universally gone up from 30 to 50 per cent. Flour is at \$15 per bbl. and the prices at market are as follows:

Beef 12 1-2 to 15 cts per lb. Corned Beef 10 cts.
Mutton, 17 to 19 cts. Veal, 18 cts. Turkey, 28 cents per lb., equal to from \$2 to \$3 apiece. A Goose, \$2.
A pair of Chickens, \$2.

☞ The London Magazine gives the following recipe for preventing ink becoming mouldy. Add to each pint bottle of writing ink, five drops of Kreosote. It gives the ink a slight odor of smoked meat, which is by no means disagreeable, and effectively obviates its tendency to become musty. Kreosote may be purchased at the apothecaries.

☞ A calculating cotemporary says that Rice is always one of the cheapest articles of food, and now it is no higher than usual, notwithstanding flour is nearly double its common price. Nothing is so cheap in the present state of prices as rice, and nothing is more healthy or more palatable.

RECIPT FOR A COLD.—Take a large tea-spoonful of flaxseed, with two pennyworth of stick liquorice, and one quarter of a pound of new raisins, put them in two quarts of soft water, and let it simmer over a slow fire, until it is reduced to one quart; then add to it a quarter of a pound of brown sugar candy pounded—a table-spoonful of white wine vinegar, or lemon juice; the vinegar is best to be added only to the quantity you are going immediately to take. Drink half a pint at going to bed, and take a little when the cough is troublesome.

This receipt generally cures the worst of colds in one, two or three days, and if taken in time, is said to be an infallible remedy. It is a sovereign balsamic cordial for the lungs, without the opening qualities, which engender fresh colds on going out. It has been known to cure colds that have almost settled in consumption, in less than 3 weeks.—*East Jour*.

FRUIT TREES may be removed and transplanted after the first of October. Most farmers who transplant fruit trees, suffer a great loss by not doing the work well.—The principal care needed, is, first, to dig the holes large, say six feet across, and fifteen or eighteen inches deep; secondly, to preserve carefully, the roots as entire and uninjured as possible, and not to suffer them to become dry out of the ground; and thirdly, to fill the hole with finely pulverized, rich earth, (not manure,) shaking in small quantities, and packing it closely, but gently, about the roots, so as to leave them in their natural position in the soil. The whole expense of this, would not be more than half the price of the tree, and in five years it would be three times the size, which it would be, if transplanted by the common way of digging small holes, and doing the work hastily and imperfectly.—*Gen. Far.*

FRENCH BLUES, is the name of a Potato, a specimen of which has been left at our office, by Mr Moses Winslow, of Westbrook; it is said that they were imported a few years since. The appearance of these potatoes recommend them as to productiveness; they are so large that a man could hardly walk straight with one in a side pocket. They are of a good quality when raised on a dry soil; are very solid and heavy, of a roundish form; the inside is of a beautiful yellow color. Mr W. informs us that he has raised a peck in a hill after separating the small ones; and that they produce far more than any other potatoes that he has cultivated. We have these potatoes for sale by the bushel, peck, half peck, or single. Those who try them should put them on rich ground, as they may as well think of making a large hog on a stinted substance, as to raise such potatoes as these on a lean soil.—*Yankee Far*

“Uncle John,” said a little urchin to an old gentleman, who was sitting with his head towards the fire, “why are you like an Indian making his house? D’ye give it up. Because he is making his *wig warm*.”—(wigwam.)—*N. E. Farmer*.

BRIGHTON MARKET.—MONDAY, Feb. 20, 1837.

Reported for the New England Farmer.

At Market 410 Beef Cattle.

PRICES.—Beef Cattle.—No particular variation from last week, about the same prices were obtained for a like quality. We quote extra at \$8 25 a \$8 50; first quality \$7 50 a 8 00; second quality \$6 75 a 7 25; third quality \$5 00 a 6 25.

Sheep.—“Dull.” Lots were taken at the following prices, viz., \$4 00, \$4 50, \$5 00, \$5 25, \$5 75, \$6 25 and \$7 00.

Swine.—None at market.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, week ending February 18.

FEBRUARY, 1837.	7, A. M.	12, M.	5, P. M.	Wind.
Sunday,	20	36	34	S.
Monday,	14	8	1	N.
Tuesday,	2*	18	22	S.W.
Wednesday,	30	44	37	S.
Thursday,	36	44	33	E.
Friday,	22	9	3*	N.
Saturday,	6*	10	6	N.E.

*Below zero.

HIVES FOR BEES.

Three Suspension Hives of Bees, weighing now 50, 69, and 71 lbs. each, are offered for sale. Inquire at this Office. Feb. 22.

BRIGHTON NURSERIES.

For sale, 20,000 *Morus Multicaulis*, or Chinese Mulberry Plants, warranted the true and genuine kind. Orders addressed (by mail) to Messrs. WINSHIP, Brighton, Mass., for Mulberry, Fruit and Ornamental Trees, Shrubs, Creepers, Herbaceous Perennials, &c. &c. that are cultivated in any Nurseries in the United States, with a first rate collection of Green House Plants, will receive prompt attention, and, if required, forwarded to any part of the Union. Brighton, Jan. 18, 1837.

SEVERAL LIKELY BOYS

From 8 to 12 years old, want to live with good farmers till 14 or 16, to be clothed, fed and schooled. Apply at the Agency for the Prevention of Pauperism, rear of Savings' Bank, Tremont Street, Boston. 2m Feb. 3.

FARM FOR SALE IN WESTBORO.

Thirty nine, from Boston and one mile and a half from the Boston and Worcester Railroad Depot on the Road leading to Hopkinton Springs, and within twenty minutes ride of either place. Containing forty-two acres of land under a high state of cultivation, with a never failing stream of water, running through the same—2 good houses, and other out buildings all in good repair. Also a large granite quarry easy of access. The granite is of fine color, works well, and can at small expense be landed in Boston. Said farm is pleasantly situated and well worthy the attention of gentlemen in pursuit of a pleasant country seat or a farmer wishing a small but good farm. For a person who would wish to accommodate families visiting the Springs, this stands unrivalled. Said farm will be sold low if applied for immediately, to NAHUM HARRINGTON, Esq. Westboro, or HENRY WHITMORE, on the premises.

Also one containing eight acres, with a new house and other out buildings suitable for a mechanic, on the same road, within one mile of the village. Apply as above. Dec. 22

CHINESE MULBERRIES, &c.


The subscribers have still on hand the following:—

- 30,000 *Morus Multicaulis*, the wood of which is fully matured, there having been no premature frosts on Long Island this season. Also 50,000 Cuttings can be supplied.
- 20,000 Ingrailed Trees of the new Chinese Mulberry, with large thick leaves, remarkable for the quantity of nutritious matter; this species being sufficiently hardy for the most Northern latitudes, and possessing all the advantages of the *Morus Multicaulis*. These are from 3 to 6 feet in height.
- 3,000 Hybrid *Morus Multicaulis*, with large leaves, and close joints, and 5 to 6 feet in height.
- 35,000 Florence Mulberry, with entire leaves, in which point they differ from the common White Mulberry. These are imported direct from the best Silk District of France, are 1½ to 2½ feet in height, and will be sold at very low rates.
- 60 lbs. White Italian Mulberry Seed.

Priced Catalogues of Trees, Green House Plants, Dahlias, Garden Seeds, &c. will be sent to every applicant.

WM. PRINCE & SONS.
Linnæan Garden and Nurseries, }
Flushing, Jan. 30th, 1837. } Feb. 8.

TREES.

Our customers will please take notice, that the season for transplanting Trees is approaching. All those who intend to order trees, are requested to forward their orders early. The first that comes are served first. Catalogues will be supplied gratis on application. Direct to

 JOSEPH BRECK & CO.
 Jan. 13. New England Seed Store.

CATALOGUE

Of Forest Seeds and Trees furnished by Wm. Mann, Bangor, Me.

White Pine—Black Spruce—Hemlock Spruce—Silver Fir—White Oak—Red Oak—White Birch—Yellow Birch—White Beech—Red Beech—White Maple—Red flowering Maple—Sugar Maple—Arbor Vitæ—American Larch—Hornbeam—White Ash—Black Ash—Mountain Ash—Elm—Basswood—Common Elder.

Customary prices are charged for boxes, carting, &c.—Orders may be addressed to J. BRECK & CO. or WM. MANN, Bangor, Me. Feb. 1.

NURSERY OF WILLIAM KENRICK.

Nowatum Hill in Newton, ½ miles from Boston by the Western Avenue, and near the great Western Rail Road.

This establishment, which now comprises 25 acres, includes the selections of the finest kinds of new Flemish Pears, and of all other hardy fruits—selections from the first rate sources and the finest varieties known.

75,000 *Morus Multicaulis*, or true Chinese Mulberry Trees, can now be supplied, wholesale or retail.

Ornamental trees, shrubs and roses. Also Herbaceous flowering plants of the most beautiful varieties.

Address by mail, post paid, to WILLIAM KENRICK, Newton, Mass. Trees and plants when ordered, are carefully selected, and labelled, and faithfully packed, and duly forwarded from Boston by land or sea. Transportation gratis to the city. Catalogues will be sent to all who apply.

Sept. 21 3m

MORUS MULTICAULIS

Joseph Davenport offers for sale 6000 plants of the true Chinese Mulberry or *Morus Multicaulis*. These will be carefully packed and forwarded as early as desired. Orders must be sent to Colerain, Mass. till the 15th March, after which time to Hartford, Conn. All inquiries will be attended to at his plantation, 5 miles South West of the city.

Early orders only will be supplied, as arrangements will be made to use all not called for soon.

Colerain, Jan. 1937. Feb. 1.

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES,	barrel	1 75	2 25
BEANS, white,	bushel	2 50	3 00
BEEF, mess.	barrel	15 50	15 75
No. 1.	"	12 00	13 00
prime,	"	9 50	9 00
BEEWAX, (American)	pound	23	30
CHEESE, new milk,	"	9	13
FEATHERS, northern, geese,	"	56	60
southern, geese,	"	52	56
FLAX, American,	"		9 12
FISH, Cod,	quintal	3 00	3 25
FLOUR, Genesee, . . . cash	barrel	12 25	12 50
Baltimore, Howard street,	"	12 00	12 25
Baltimore, wharf,	"	11 37	11 50
Alexandria,	"	11 75	12 00
GRAIN, Corn, northern yellow	bushel	1 13	1 20
southern flat yellow	"	1 12	1 15
white,	"	1 09	1 11
Rye, northern,	"	2 12	2 25
Bailey,	"	90	1 00
Oats, northern, . (prime)	"	65	70
HAY, best English, per ton of 2000 lbs		22 50	
hard pressed,	"	18 00	20 00
HONEY,	gallon	52	55
HOPS, 1st quality	pound	9	10
2d quality	"	7	8
LARD, Boston, 1st sort,	"	15	16
southern, 1st sort,	"	13	14
LEATHER, Philadelphia city tannage,	"	30	31
do country oo	"	24	27
Baltimore city do.	"	27	29
do. dry hide	"	21	23
New York red, light,	"	24	25
Boston do. slaughter,	"	21	23
do. light,	"	19	21
LIME, best sort,	cask	1 40	1 45
MACKEREL, No. 1, new,	barrel	9 75	10 00
PLASTER PARIS, per ton of 2200 lbs.	cask	3 00	3 25
PORK, Mass. inspect. extra clear,	barrel	30 00	31 00
clear from other States	"	26 50	28 00
Mess,	"	27 00	28 00
SEEDS, Herd's Grass,	bushel	3 00	3 12
Red Top,	"	1 00	1 12
Hemp,	"	2 75	3 00
Red Clover, northern	pound	15	17
Southern Clover,	"	15	16
SILK COCOONS, (American)	bushel	2 75	4 00
TALLOW, tried,	lb.	9	10
TEAZLES, 1st sort,	pr. M.	3 50	4 00
Wool, prime, or Saxony Fleeces,	pound	85	1 30
American, full blood, washed,	"	65	79
do. 3-4ths do.	"	60	65
do. 1-2 do.	"	55	58
do. 1-4 and common	"	50	55
Northern pulled. { Pulled superfine, . . .	"	65	70
{ 1st Lambs, . . .	"	55	60
{ 2d do.	"	40	45
{ 3d do.	"	30	35
Southern pulled wool is generally 5 cts. less per lb.			

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	poand	14	15
southern, and western,	"	13	14
PORK, whole hogs,	"	10	13
POULTRY,	"	18	19
BUTTER, (tub)	"	22	23
lump	"	21	23
EGGS,	dozen	23	30
POTATOES,	bushel	75	1 25
CIDER,	barrel		

LINSEED OIL MEAL.

The subscribers are now ready to supply Farmers and Stable Keepers with the above superior article for feeding horses, cattle and swine, the quality and cheapness of which has been fully tested by farmers in the vicinity, and stable keepers in the city, to whom reference will be given

The Linseed Oil Meal is used generally as a substitute for corn meal, and is mixed with bran, or any other food having little nourishment, or with cut hay and bran for horses; and is believed to be as cheap food as corn meal at seventyfive cents per bushel.

The price of the above is thirty dollars per ton, delivered at the mill in Medford, thirtytwo dollars in Boston. Apply at No. 10 Commercial wharf, or in Medford at the mill.

Nov. 23.

GEO. L. STEARNS & CO.

MANUAL ON SUGAR BEET.

Just received a Treatise on Beet Sugar, containing, 1. A description of the Culture and Preservation of the Plant. 2. An Explanation of the Process of Extracting its Sugar.—From the French, by Edward Hureh. For sale at Nos. 51 and 52 North Market street, Boston, by

Feb. 22.

JOSEPH BRECK & CO.

SEEDS FOR COUNTRY DEALERS.

Traders in the country who may wish to keep an assortment of Genuine Garden Seeds, for sale, are informed they can be furnished at the New England Farmer Office, Nos. 51 and 52 North Market Street, Boston, with boxes containing a complete assortment of the Seeds mostly used in a Kitchen Garden, on as favorable terms as they can be procured in this country, neatly done up in small papers, at 6 1-4 cents each—warranted to be of the growth of 1836, and of the very first quality. A liberal discount will be made to dealers. Ornamental Flower Seeds will be added on the same terms, when ordered, as well as Peas, Beans, Early and Sweet Corn, etc. Orders should be sent in early. Catalogues supplied gratis.

Jan. 18.

WANTS A SITUATION

As Gardener, a young Man who is well acquainted with his business. He would prefer a Greenhouse, or any other business of the kind. Good references will be given, apply to

Feb. 11.

JOSEPH BRECK & CO.

GARDENER WANTS A SITUATION.

Communications left at this Office will be attended to.

Feb 1.

Subscriptions and payments to the Silk Manual will be received by the following

AGENTS.

- New York—G. C. THORNBURN, 11 John-street.
- Flushing, N. Y.—WM. PRINCE & SONS, Prop. Lin. Bot. Gar.
- Albany—WM. THORBURN, 347 Market-street.
- Philadelphia—D. & C. LANDBETH, 85 Chesnut-street.
- Baltimore—Publisher of American Farmer.
- Cincinnati—S. C. PARKHURST, 23 Lower Market-street.
- Middlebury, Vt.—WIGHT CHAPMAN, Merchant.
- Taunton, Mass.—SAM'L O. DUNBAR, Bookseller.
- Hartford—GOODWIN & Co. Booksellers.
- Newburyport—EENEZER STEDMAN, Bookseller.
- Portsmouth, N. H.—JOHN W. FOSTER, Bookseller.
- Woodstock, Vt.—J. A. PRATT.
- Brattleboro'—JOS. STEEN, Bookseller.
- Bangor, Me.—WM. MANN, Druggist, and WM. B. HARLOW.
- Halifax, N. S.—E. BROWN, Esq.
- Louisville—SAMUEL COOPER, Bullit Street.
- St. Louis—H. L. HOFFMAN, and WILLIS & STEVENS.

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School Street.

ORDERS FOR PRINTING RECEIVED BY THE PUBLISHERS

FESSENDEN'S SILK MANUAL,

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture and Rural Economy.

VOL. II.

BOSTON, MARCH, 1837.

NO 11.

PUBLISHED MONTHLY BY
JOSEPH BRECK & CO.

51 & 52 North Market St., at the N. E. Farmer Office.

T. G. FESSENDEN, EDITOR.

Fifty cents per year—twelve copies for five dollars
—always in advance.

Postmasters and Agents allowed 10 per cent on
all subscribers.

BOSTON, MARCH, 1837.

PUBLISHERS' NOTICE.

DISCONTINUATION OF THE SILK MANUAL.—We shall discontinue the publication of the *Silk Manual and Practical Farmer*, with the present Volume, which ends with the April number. Subscribers who have not paid will hand the amount of their arrearages to the Postmaster where they reside, who will remit by mail, or send by some friend visiting the city. To those who have paid in advance the weekly *New England Farmer* will be sent unless otherwise ordered by the Subscribers.

The attempt to introduce the Silk Culture into the United States is not a new undertaking. For several years the subject has demanded the close attention of the most distinguished men in the country. Previous to the Revolution, Georgia, South Carolina and Virginia had begun the experiment, and with some degree of success. Since that time various attempts have been made to renew those experiments, and embark largely in the business. Benjamin Franklin was among the most forward to recommend this measure, and a filature under his direction was established. But for want of funds this project failed, and for want of patience and information all the others were abandoned. Notwithstanding these failures, the attention of some men who were convinced that this culture could be made successful if properly managed, ceased not to be drawn to it. And they continued their inquiries and published their results, exhorting the people themselves to commence, and persevere until the desired end was accomplished. Conspicuous among these writers were P. Du Ponceau, Esq. of Philadelphia, and our own patriotic Dearborn. As a result of their la-

hors, and the labors of their cotemporaries, Congress now began to entertain the question, "Whether it was practicable to introduce successfully the Silk Culture into the United States." A committee was appointed who reported favorably to the measure and under their direction a manual was prepared, embodying much new and useful information which was circulated extensively. State Legislatures also began to move in this matter, and by their bounty encouraged very much the beginning of the business. Joint Stock Companies were raised to propagate the mulberry tree. But the undertaking would never succeed in this way. The farmers must begin. In the days of Franklin if they could have been induced to risk a little time and expense in cultivating the mulberry and raising the silk worm, his experiment would have succeeded and we should have been enjoying at this time the full fruition of the advantages to be derived from so important an addition to our agriculture and manufacture. But the inducements held out to them were too vague and unsatisfactory, and the result too remote to warrant their running any risk. Neither was it considered important to urge their interest in the success of the enterprise. Happily the state of things changed, and encouraged by legislative bounty, farmers were nothing loth to begin their experiments with a good will. Information elemental, we may call it, was wanted respecting the culture of the Mulberry, its varieties, soils best adapted for its growth, manner of raising and feeding the silk worms and all the *modus operandi* of the business called into existence the *Silk Manual*. Our object was to present this information in a cheap form so that it might be accessible to all, and our subscription was placed at 50 cents per annum, barely sufficient to remunerate us for the cost.

Contemporaneous with the *Silk Manual* other papers of the same kind were established on the same liberal plan, and many others in every part of the United States have since been commenced besides numerous books and pamphlets all relating to this interesting subject, which has been widely circulated. Such being the case we are willing to retire leaving the ground so well occupied. In withdrawing our sheet from the public, do not let it be understood that our interest in the subject discussed is waning, or that we have fears as to its final success. We look upon the silk business, its culture,

and its manufacture as already firmly engrafted into our system of domestic economy, and ere long it must become one of its most important and vital features. Silk is destined to be a staple of New England, its manufacture giving employment to thousands of our citizens, and its fabric an article of great mercantile and commercial importance.

Neither have we done publishing. In the *New England Farmer* is given every important item that comes to light in the progress of experience and experiments; and its readers are informed of every advancement and success that is realized. Its columns are always open to discuss this subject.

Can we induce our subscribers to transfer their names to the subscription list of the *New England Farmer*? Matter relative to Silk, as much as is given in the Manual, will be discussed. Its tendency is to induce enquiry and experiment, eradicate false modes of culture, and improve where improvement is necessary.

Agriculture is the life-blood of a nation: without it decay and ruin are the consequences. Then of course the more perfect our Agriculture, the more stable is our country and its institutions. A limping, miserable, imperfect mode of husbandry is an evil, so far as it is removed from what it can be made to be. And nothing can transcend the importance of those labors, which strive to place Agriculture upon its proper footing, and give it its due importance. These axioms need no argument. But strange as it is, the art so important to civilization, to our country's existence and happiness, the oldest art, is yet in an incipient state. And to ask many to read an agricultural book, to subscribe to an agricultural paper, and to cultivate their farms on scientific and natural principles is little short of direct and premediated insult. Such are wise in the knowledge of their fathers only. "It can learn us nothing," cry these possessors of hereditary practice. Indeed! And so they are sure that no possibility of circumstances can ever fix a new idea in their head. They can never learn any more. Is not this a fair inference? Objections to Agricultural reading are often urged, as often refuted, and we are proud to believe that prejudice is breaking away before the tide of knowledge, which is irrigating and fertilizing the minds of this country and the world. Knowledge ever does and must distinguish the scientific from the ignorant agriculturist. Agriculture was held in high esteem by the ancients. Warlike as they were, and knowing as we are apt to think but little of the pleasant occupations of peace, still agriculture and its improvement were objects of supreme regard. The wisest princes and the most able ministers, encouraged husbandry and the breeding of cattle. Their conquests were nothing. The strength of a country is not to be considered by the extent of its territory, but by the utility of its labor.

To show that they set a full value upon agricultural reading, we will cite the fact that Hiero, Monarch of Syracuse, wrote a book in which he gave wise and excellent rules for augmenting the fertility of the country. Many others beside have not considered it beneath their rank to write agricultural precepts for the people. Plato, Xenophon and Aristotle are among the number. They were also practical men. Mago, a Carthaginian General, wrote twenty-eight Volumes upon agriculture, and

so high a value was set upon it, the Roman senate ordered them to be translated for the benefit of their country. The good effects of this systematic culture were every where visible.

One reason of the small produce of land is, because Agriculture is not looked upon as an art that requires *rules, reflection and study*. Where every one abandons himself to his own taste or prejudice, system is outraged, and the process must be very much retarded.

A prospectus of the *Farmers* is given in another column, and we shall be glad to receive additions to its *List*, and contributors to its columns.

BY THE EDITOR.—The preceding elaborate exposition of the views and motives of the Publishers of the *Silk Manual*, in discontinuing this periodical, renders it superfluous for its Conductor to enlarge, in taking leave of those who had given it their patronage. Besides, we intend *not to discontinue* to promote, as far as our feeble efforts will avail, the great object of this little monthly. We shall merely transfer our labors to introduce and foster the Silk culture from the *Silk Manual* to the *New England Farmer*, on which last mentioned ground we should be happy to meet all who are friendly to the growth and manufacture of Silk, which we hope will eventually give to our prosperous and enterprising countrymen a new and staple article of consumption and commerce.

POTASH FROM THE BEET.—M. Dubunfant, a French chemist, has discovered that the beet after extracting the sugar and molasses, will yield good potash, but whether from the residuum of the molasses, after distillation, or from the pomice we do not understand. The produce is about one pound from a hundred pounds of the beet root. At this rate of yield, the beet annually manufactured into sugar in France would afford about 15,000,000 pounds potash, worth from eight to nine millions of francs, or from one and a half to one and three quarters millions of dollars. So say the prints.

EXTRACT FROM GOV. EVERETT'S MESSAGE.—A law was passed at the last session of the Legislature, to encourage the manufacture of silk. The bounty provided has been paid to several applicants. Facts which have been developed in the course of the year, appear to strengthen the hope, expressed at the commencement of the last session, that this branch of industry is destined to prove of immense importance to the Commonwealth. The difficulties in reeling, which were supposed to constitute the great obstacle to the introduction of the manufacture, have been overcome, and machinery for spinning and weaving of admirable efficiency has been contrived. Specimens of silk fabrics from power looms at work in Massachusetts, have been exhibited to me, which warrant sanguine expectations of entire success in establishing the manufacture.

Did you make root crops for your stock last year? If you did not, do so this, and next year you will thank us for reminding you of what you ought to do.

(From the Maine Farmer.)

CANADA THISTLES.

MR HOLMES:—In looking over Vol. 3, of the Maine Farmer, I was much pleased with "Uncle Eben's" mode of destroying this nuisance. I believe he has got the right notion, and am willing to endorse his theory with the following statement of facts.

Some 8 or 10 years ago I was in the habit of going to my neighbor's yard for water—it was completely covered with Thistles, as were the streets in front and rear of my house. When they were fairly in blossom, I mowed them, without any regard to the age of the Moon, believing as I had often been told, that by mowing at this stage of their existence, they would be destroyed, as the stalks being hollow, the rains would remain in them and rot the roots,—during a residence of 3 or 4 years in the same place, I saw few or no thistles where I mowed them. I then removed to another house, in front of which was a yard about 4 by 8 rods, which was well covered with thistles, at the same stage of their existence as in the former case. I mowed them, with this difference in the result: the next year I had twice as many. I mowed them again with no better success. I left the house the next spring. My successor mowed them when in blossom as I had done, and they were nearly or quite destroyed. The last season I noticed the place frequently, and could not discover a thistle.

From my experience, I am satisfied that there is no particular time in the growth of the thistle, that mowing will kill them, but believe with "Uncle Eben," that by mowing them on the decrease of the Moon, they will be destroyed. This is as rational as to believe that a slight sprinkling of salt will destroy a root that varies from six inches to as many feet in depth, and of "no particular length." I do not believe the Moon has anything to do with making soap, but I believe it has much to do with vegetable life, that timber cut on the increase of the moon, will last longer than that cut on the decrease, and in confirmation of this, I intend sending you the result of an experiment made by an observing and intelligent man, as soon as I can see him and get his written statement of what he once communicated to me verbally.

G.

(From the Dedham Patriot.)

MANSFIELD COAL.

Sir—I promised some time since, to give you some account of the progress of the mining operations in this town. I suppose the history of the discovery of coal here, is well known. The first coal found was by a Mr Harding, in digging a well. Soon after this discovery, some gentlemen obtained a lease of the Harding farm, and formed themselves into a Company, called the "Massa-

chusetts Mining Company," appointed General Chandler of Lexington, Agent, and commenced operations in the fall of 1835; the winter, as you recollect, commenced early, and continued with great severity, which obliged them to suspend their operations till spring.

As soon as the weather would permit a building was erected, a steam engine procured and put into operation, for the purpose of pumping water from the pit, hoisting, &c.

At the depth of twenty feet from the surface, a vein of coal was discovered, six feet in thickness, a running southwest and northeast, clipping to the northwest at an angle of about 50 deg., which was pursued laterally for a little distance, sufficiently far, however, to satisfy the Company, that coal in abundance, and of good quality existed there.

It was then determined to sink the pit perpendicularly to the depth of sixty feet, and then make a lateral cut or drift (as the miners say) to the vein. This has all been done. The perpendicular shaft is now sixty feet deep, and a side cut of twenty feet brought the vein of coal in full view; and at this time, with only two regular miners, about two tons of good coal are brought to the surface daily, which is sold as fast as procured, at \$8 per ton.

Gen. Chandler (who, by the way, is a gentleman eminently qualified for this business) is now in Pennsylvania, engaging experienced workmen, and in a few days will be able to produce 20 or 30 tons per day.

I find, in conversation with people upon this subject, that there is little faith in the success of these experiments. But your readers may rest satisfied, that there is an abundance of good coal in Mansfield, and the gentlemen engaged in these operations are determined to draw it from its hiding places, that it may be made to administer to the comfort of themselves and others.

I have never seen a better fire from the best Pennsylvania veins, than can be made from the Mansfield coal. It ignites easily, burns freely and imparts as much heat as the best Anthracite.

The operations here are by no means confined to the Mass. Co.; pits or shafts have been sunk by different companies, in various places, but owing to the necessary delay in getting engines, pumps, &c. into operation, they have not yet been able to get to a depth sufficient to furnish so pure an article as the one alluded to. But I am informed that the 'coal indications' in all the shafts, are good; and we have every reason to believe, that in a short time, coal will be produced, equal in quality to the 'Harding Vein,' from all the pits, and in great abundance.

You have probably seen in the New York papers, a letter from Capt. Bunker, of the steamboat President, to Sir Foster Bryant, which states that

he used the Mansfield Coal in his Cabin Stoves, during a recent passage from Providence to New York, and that he found it equal in all respects to the best Pennsylvania Coal. A certificate to the same effect was signed by the passengers and published.

Soon, 'Peach Orchard,' 'Broad Mountain,' 'Lackawana,' 'Schuylkill,' 'Lehigh,' 'Diamond Vein,' &c. &c., will be known only as things that were; and 'Mansfield Harding Vein,' will be the caption used by advertising friends, in order to make sale of remnant lots of Pennsylvania Coals.

With the compliments of the season, accept my sincere wishes for your future usefulness, *comfort* and prosperity.

Mansfield, Jan. 1, 1837.

WHITE WASH.

As the citizens of our village have, much to their credit, turned their attention to painting and white-washing the outside of their buildings, we insert the following in hopes something may be drawn from it to their advantage on the score of utility and economy.

Incombustible Wash and stucco White Wash.—The basis for both is lime, which must first be slacked with hot water, in a small tub or piggin, and covered, to keep in the steam; it then should be passed in a fluid form, through a fine seive, to obtain the flour of the lime, it must be put on with a painter's brush,—two coats are best for outside work.

First.—To make a fluid for the roof, and other parts of wooden houses, to render them incombustible, and coating for brick, tile, stone work and rough cast, to render them impervious to the water and give them a durable and handsome appearance.

The proportion in each recipe 5 gallons.

Slack your lime as before directed, say 6 quarts into which put one quart of clean rock salt for each gallon of water, to be entirely dissolved by boiling and skimmed clean; then add to the five gallons one pound of alum, half a pound of copperas, and three-fourths of a pound of potash—the last to be gradually added; four quarts of fine sand or hard wood ashes must also be added, and coloring matter may be mixed in such quantity as to give it the requisite shade. It will look better than paint and be as lasting as slate. It must be put on hot. Old shingles must be first cleaned with a stiff broom, when this may be applied. It will stop the small leaks, prevent moss from growing, render them incombustible, and last many years.

Second. To make brilliant stucco white wash for buildings, inside and out. Take clean lumps of well burnt stone lime; slack the same as before; add one fourth of a pound of whiting or burnt alum pulverized, one pound of loaf or oth-

er sugar, three pints of rice flour, made into a very thin and well boiled paste, starch or jelly, and one pound clean glue, dissolved in the same manner as cabinet makers do. This may be applied cold within doors, but warm outside. It will be more brilliant than plaster of paris, and retains its brilliancy for many years, say from fifty to one hundred. It is superior, nothing equal. The east end of the President's house, in Washington, is washed with it.—*Ohio Far.*

WASHING SHEEP.—Bartholomew Nelson, Esq. late of Augusta, now of Hallowell, remarkable for his plain, practical common sense, observed in conversation, that he thought he had made quite an improvement in his mode of washing sheep.

Having a stream in his pasture, where he could raise a small head of water, he made a plank box, eight feet long, four feet wide, and three and a half high, just below his dam, from which he conducted a stream of water into his box, sufficient to keep it full and running over at the lower end, besides a constant discharge from the bottom of the box through a two inch anger hole, to let off the sediment. This box or vat, he considered of fair size for four men to work at, standing on the outside, dry, while they washed their sheep, and then returned them to the flock in the yard, made of suitable size for the number of sheep to be washed. He thought this cheap establishment increased the comfort of his laborers, compared to wading into the water, and also that they could wash faster and cleaner, without bending so much, or exposing their clothes to be rent.

A number of neighbors might join in preparing such a convenient concern, where they could find suitable water; or one could build, and then rent the accommodation, if he chose. Considering this information too good to be lost, and it being a good season to provide the little lumber necessary, I thought I would relate it as recollected.

I think he stated that 3 or 4 men completed the whole concern in half a day.—*Bangor Mechanic and Farmer.*

BROWN BREAD.—A writer in the Greenfield Mercury recommends the use of rye meal without sifting or separating the bran, for brown bread. He says the bread will be very dark—almost black—but, if mixed with the due proportion of Indian meal, and properly made, exceedingly sweet and palatable. We have no doubt that such bread would be found not only more palatable, but more economical and more wholesome than when the rye is bolted or sifted. There are some portions of New England, where the good housewives always make it in that way, and better bread is no where made or eaten.

ON THE QUALITY AND GROWTH OF WHEAT. — From a late London paper, we learn that Col. Le Couteur, an officer in the Jersey militia, has recently published a small work, "on the varieties, properties, and classification of wheat." The details are the results of the writer's own experiments, on his own property. Circumstances led him to make a collection of wheats; and in the course of five years' close attention and research, it increased to upwards of 150 sorts. To show the importance of attending to the varieties and properties of wheat, Col. Le Couteur mentions, that among these varieties, there are some that will thrive better than others in the particular soils and situations adapted to each, all over the kingdom; that one ear, of a superior variety, sowed grain by grain, and suffered to tiller apart, produced 4 lbs. 4 oz. of wheat, whereas, another ear, of an inferior sort, treated in the same manner, produced only 1 lb. 10 oz.—a proof of the paramount importance of selecting the most productive and farinaceous sorts for seed, the profit of sowing one sort, and the loss resulting from the other being manifest. The writer remarks that his attention was directed to this important subject, by professor La Gasca, Curator of the Royal Gardens at Madrid; that five years since, he accidentally saw about eighty distinct sorts of wheat growing in a nursery garden in Jersey, some seven feet high, some only four, the ears of some being three, others six inches long; and that the professor explained their nature to him. He requested the professor to visit his crops, considering them to be as pure and unmixed as those of his neighbors. To the writer's dismay, the professor drew from three fields, twenty-three sorts, some white wheat, some red, some liver-colored, some spring wheat, some dead ripe, the corn shaking out, some ripe, some half so, some in a milky state, and some green. He thereupon became convinced, that "no crop, in that state, could either produce the greatest weight of corn, give the largest quantity of flour, or make the best or lightest bread, such as would be produced from a field in an equal and perfect state of ripeness." He then selected the best and most productive sorts of wheat, and secured 14 sorts, which he afterwards cultivated with great care and success, showing the great profit resulting from this care and selection, and arguing on the immense consequences to the country, if attention to this subject could be made a national object. The modes by which Col. Le Couteur proceeded and succeeded, occupy large portions of the volume; but the paper from which we have drawn the preceding account, gives no further information. — *Boston Courier*.

A steam Flouring Mill is contemplated at Goshen, N. Y., the capital of the fertile County of Or-

ange. Goshen is an interior town, but in the centre of a celebrated butter and grain region.—She has no water power, and proposes to make up for it by the mills in question, in using Avery's newly invented steam engine, by which it is believed 150 bushels of grain may be ground by one cord of maple wood, and with four run of stones, 385 bushels per 12 hours. Maple wood delivered at the mill, would cost \$3,50 per cord.—*N. York Star*.

SHEEP HUSBANDRY.

Extract from a subscriber in Maryland, to the editor of the Genesee Farmer:

"While I have my pen in hand, it may not be amiss to give you a brief account of the very handsome profits which I have realized from a flock of sheep during the past year. When I came into possession of my farm, a short time since, I found on it, twenty ewes of a very indifferent breed, and of that breed, not the best in age, size, or in any other respect. They were fed during the last winter on corn fodder, with the addition of turnips for a few days about the time of yearning. After this, (the early part of March) they received no food except what they could find for themselves in the fields. These sheep, thus treated, yielded an interest during the following summer, of 57 per cent. on the sum for which they could have been readily purchased the preceding fall, as follows:

20 Ewes at \$5,	\$100,00
22 Lambs at \$3,	66,00
50 lbs. of wool at 42 cts.,	21,00
	<hr/>
	\$187,00

It is maintained by some writers in agricultural papers, that the manure of this animal is a full equivalent for all the food which it consumes; but supposing this to be an exaggerated estimate, and that the manure of this number of sheep during a year would be less in value than their food by \$50, still there is a net interest of thirty-seven per cent.

Is it not surprising, and much to our discredit too, that when such are the profits of sheep husbandry, we should import such large quantities of wool? and also that persons should leave their pleasant homes in the northern and middle states, for the wilderness of the west?"

The tremendous snows in England have, as was to be expected, set all the antiquarians at work to find out parallels. The following is a *whacker*, and a match for Col. Wildfire:—"The longest snow storm that was ever known in England, took place in the year 1514. It is recorded in the register of the parish of Wotton Gilbert, that it began on the 15th of January, and continued to snow every day, until the 12th of March. The loss of human life and cattle was immense."

CHINESE MULBERRY, MORUS MULTICAULIS.—The immense quantities of this tree, now disseminated through every part of the Union, from the different nurseries, will undoubtedly serve to test thoroughly its good or bad qualities. Its hardihood will also be fairly proved by the present winter, which so far at least, may be considered a season of the ordinary severity. For ourselves, we have no doubt that the *Morus Multicaulis* will become perfectly naturalized in every part of the Union south of 26° latitude, and that the facility of silk-rearing will be wonderfully increased by it. The leaves being of very large size, the trouble of gathering a given weight is greatly diminished, and there is every reason to believe that two crops of silk may be reared upon them in a single season. The French silk growers now plant the *Morus multicaulis* entirely in rows or hedges, to be kept dwarf by cutting them down to within one, two or three feet of the ground annually. The advantages of this method are—perfect hardihood of the plants—facility in gathering—and enormous weight of foliage from a small surface. In addition to this, a crop of silk-worms may be fed on the leaves from the cuttings of the Chinese mulberry of a single season's growth, instead, as in the case of the old Italian variety, of waiting until the tree attained considerable size before plucking the foliage.—*Boston Mag.*

TRIFOLIUM INCARNATUM.—The fine variety of Clover appears to be attracting much deserved attention in England, and many experiments are being made with respect to the proper mode of cultivating it. The plan pursued there by many persons of setting it on ploughed land, seems to be giving way to a more certain and practicable mode of culture. A writer in the *Farmer's Magazine*, who signs himself "A Constant Reader," gives the result of a series of experiments which he had made, that, so far as they go, would establish the fact that, to ensure success to a crop of this luxuriant and nutritious grass it is necessary it should either be sown stubble or grass-sward. He remarks that in September, 1834, he sowed three small pieces of light land; one of which he mowed green for horses, and never had the same quantity per acre of either tares or lucerne; that all kinds of stock are fond of it, and thrive astonishingly upon it: another piece was mown for stock and made the best of hay—the third piece stood for seed, and produced about 12 bushels per acre.

In September, 1835, he sowed two pieces of wheat stubble, where the clover layer had entirely failed before the wheat crop, and a piece of

The *Montreal Courier* estimates that during the year 1836, 500,000 bushels of Wheat were sent from Canada to the U. S.

barley stubble which had also tired of clover, and succeeded in obtaining a good plant upon each.

His mode of culture is—first, to use a large barrow to raise a mould; then to level it with small barrows twice over, and finish with a heavy two-horse roller, as the land cannot be made too solid.

FORTY-FOLD POTATO.—This fine variety which we have frequently noticed, and which has been cultivated to a considerable extent, the past season, and is likely to be more so the coming one, is an enormous producer, and we have been informed by several gentlemen, who have grown it, that the quantity of potatoes generally found in a hill, is three times the number of any other sort. Owing to this large number, the potatoes are consequently, not so large in size as they would be were there not so many in a hill; a gentleman who raised upwards of fifty bushels year before last, observed this, and the past season ordered but one potato to be planted in a hill; but when the crop was dug, the number of potatoes was found to be nearly as great as the year before. The coming season he informs us, that he shall cut them up into sets, and in this manner one potato will plant three or four hills: what the result will be, remains to be seen; but we have no doubt that the potatoes will be less in number, and of a much larger size. The same gentleman has stated to us that he thinks it is the best variety he has ever eaten.—*Am. Gard. Mag.*

BUTTER.—Instead of setting the pans of new strained milk in a warm cellar for the cream to rise, set them in a cool buttery, where the milk will gradually freeze; and as soon as it is frozen solid, the cream will all be at the top, and ready to be taken off; which can be more easily done by a little instrument made of iron, in the form of a common hoe. More cream is obtained from a given quantity of milk, by freezing it up, than can be obtained in the old way, of letting it rise itself without freezing.

When a sufficient quantity of cream is obtained for a churning, place it in an iron kettle, over a clear fire, and scald it, but not let it boil; stir it often, and skim off the froth as long as it continues to rise. The process of scalding, stirring and skimming, cleanses the cream of its impurities, and saves about three-fourths of the labor of churning, and produces good flavored butter, entirely free from that bitterish taste uniformly found in winter-made butter, in the 'old way.' When the skimming process has been completed, take the kettle from the fire, and when the cream is cooled down a shade below the temperature of milk, new from the cow, it is fit to put into the churn.—*Yankee Far.*

GOLDEN BALL.—We noticed this apple last spring, and it is so good, and as we have further particulars we give it a further notice. It is raised in Norway, by Jonathan Hall, Esq. He cannot trace its origin; ten years ago, he procured scions from several places and the tree that now produces these excellent apples, was then a small scion set near the ground. It is doubtless a new variety that originated in some part of this state. These apples are of the largest size, round—color bright yellow; they are of an excellent flavor, very mild, pleasant and rich, good for cooking and eating. The most of them are now in their prime, though some are decaying. We suppose that they are generally in use from December till March, and that they may, with some pains, be kept till June. They are very productive, and one great advantage is, that the tree bears every year. The little scion set ten years ago, produced 5 bushels in 1835, and six bushels in 1836. We think that this is not only one of the best, but the very best apple in its season, worth more than any other brought to this market. Mr Hall has left a few at our office, for sale, and those who choose, can taste and judge for themselves. We shall have a very few of these scions; they are scarce, as the tree has been too much cut already. We set some last spring, and shall probably be able to furnish scions another year.—*Yankee Far.*

MAKING CHEESE.

As practiced in one of the most eminent Dairies in New England.

Add the night's milk with the morning's, and heat it gently over a fire until well warm, then put it in a tub or vat with sufficiently prepared annatto to give it a handsome yellow color. Put rennet sufficient to make it curd in 25 minutes; when curded, take a wooden knife or sword and chequer it all into squares to the bottom; let it stand from 15 to 20 minutes, or until the whey appears above the curd; break it up carefully, with the hands in such a manner as not to bruise or break the pieces of curd; next put a clean strainer on top of the curd so as the whey may arise on top, and lade it off with a dish or dipper; then put a cheese strainer in a cheese basket over a tub, and carefully remove the curd and remaining whey into it, and cut it into slices with a thin skimmer, until the whey has mostly drained out; then bring the corners of the strainer together and twist them, so as to bring the curd in a solid mass, and put the twisted corners down in the basket, and a clean board about one foot square on the top of it, on which put about 10 weight, in order to press out the whey. After remaining about 15 minutes, the curd is to be cut in pieces about one inch square, and put back again with the weight on, and remain from ten to

fifteen minutes, and then cut as last stated, and put back again, and so repeated from six to ten times, or until the whey has entirely done dripping from it; after which take it out and cut in pieces of about two inches square, put in a wooden bowl and chop with a chopping knife, until the pieces are the size of Indian corn. The next is scalding the curd, which is done by putting it in the strainer and putting in the kettle of whey heated to blood warmth, for if the whey is too hot it will ruin the cheese, and make it dry and hard; while in the whey it must be stirred with the hand until the whole is equally heated; then it is taken out and put in a cheese basket over a tub, and clean fine salt thoroughly mixed, to give it a high salt flavor, and let it stand until hardly blood-warm, then the corners of the strainer are twisted together as before, and put in the hoop and pressed, in this instance, with a weight of 100 pounds to every 10 of cheese, to remain about half an hour, taken out and turned and re-placed in the press, and add about one-third to the weight—then let it remain three hours. Then take it out and put it in a fine clean linen cloth, perfectly smooth, and no wrinkles in it; put again in the press and press fortyeight hours, being taken out and turned once during the time. At this pressing about one third additional weight must be added. It must be then taken out, oiled and put on the shelf, where it must be turned, rubbed and oiled at least every twentyfour hours. From long experience, I have found it the best method of making cheese. S.

—*Tennessee Far.*]

(From the Albany Cultivator.)

DUTTON CORN.

Northampton, Jan. 18, 1837.

JUDGE BUEL,—*Dear Sir:*—The following is the method of culture, and the result of the seed corn purchased of you last autumn, which, if you think proper, you are at liberty to give a place in the Cultivator. The variety is the twelve rowed early Dutton, or Buel corn, and is the best with which I am acquainted, particularly for latitudes north of 40°, on account of its early maturity, which is, I should say, two weeks earlier than the common or eight rowed kind. Out of several acres of the latter, planted the last season, I had not a bushel of sound corn, it being destroyed by the early frosts, while the Dutton was ripened and harvested on the 20th September, and did not give more than two per cent. of soft corn. The piece of ground measured one acre and five and a half rods, and yielded eight thousand seven hundred and eleven and a half pounds, (which, at 75 lbs. the bushel, allowed by the agricultural society,) gave one hundred twelve and a half bushels to

the acre; also, four heavy two horse loads of well cured corn stalks, worth more than a ton of the best hay.

Preparation of the ground, manure, &c.

I have a fine lot containing six acres, lying east, and in a full view from my house, slightly undulating and gently sloping, on which two or three years ago, I commenced farming in miniature, on the rotation system, that I might judge of the comparative profit of good systematic culture, compared with a slovenly and parsimonious habit, too often persevered in, and I am so far much pleased with the result; it speaks loud in favor of good husbandry. This lot has for many years, (fifty or more, for aught I know) been undisturbed by the plough, from the erroneous opinion that good grass land should remain for the scythe only. The soil is mostly a sandy loam; some part of it, however, is low and wet; this I have overcome by thorough draining.

I prepared by deep ploughing last fall, a part of the above lot, carted and spread upon it the 10th of May, thirty-eight loads of long unfermented stable dung to the acre, making five heaps to the load, dropped at five yards distance each way: this, after being carefully spread, was passed over with a heavy roller, and afterwards well harrowed, planted the 15th of May, and asked as it made its appearance above the ground.

Estimate of expenses, &c.

DR.

To ploughing with 2 yoke of cattle, 1 1-2 days, at \$3,00,	\$4 50
Rolling and harrowing 1- 1-2 days, 1 team, at \$2,00,	3 00
Seed corn,	1 00
Preparing seed corn with tar, &c.	25
Planting two days, at \$1,00,	2 00
Three hoeings, two days each, at \$1,00	6 00
Horse and man 1 1-2 days with cultivator, at \$1,50	2 25
Cutting and binding two days, at 1,00	2 00
Picking and husking 7 days at 1,00	7 00
38 loads of manure at 1,00	38 00
Carting and spreading at 25 cents,	9 50
Total,	\$47 50
Deduct two-thirds for the succeeding crops in the rotation,	31 61
	<hr/>
20 bushels ashes at 12 1-2 cents,	2 50
Spreading one day at 1.00	1 00
Interest on land valued at 1,50	9 00
	<hr/>
	\$56 39

	Cr.	
By 62 1-2 bushels corn at 1,50		93 75
50 do. seed do. at 2,00		100 00
2 do. soft do. at 50 cents		1 00
4 loads stalks,		15 00
		<hr/>
	Deduct expenses,	\$209 75
		55 39
		<hr/>
	Profit,	\$153 36

I have not had experience enough to know which is the most preferable, to plough old sward land in the fall, and spread the manure on the surface the following spring, or to spread the manure in the spring before ploughing, and then turn it in. I think much may depend on the season, in the first practice; if the season should be dry, may not a good deal be dissipated by the winds? and again, if it should be wet, may not the roots reap a greater advantage, than if it lay beneath the turf? I will thank you for your views on the subject.

[*Old sward, for core land, is best ploughed in the fall, and if long manure is at command, it may be hurried in the operation. I will undergo but a slight, if any fermentation before ploughing, and the soil will imbibe what it gives off of nutriment. A clover lay is best ploughed early in May, having the manure previously spread. If, in the first, manure is not at command, we would recommend that the plough be set deep, and that the manure be turned in the spring, immediately preceding planting, by a superficial furrow, which shall leave the sod as much as possible undisturbed.—Editor of the Cultivator.*]

Although I used my own teams, and hire my labor by the month, at 12 to \$14, yet in consequence of rainy weather, broken days, &c., I think it but right to charge the fair price of labor by the day, both for man and team. In estimates of this kind, the labor is frequently charged per day at the average of the price per month, which makes quite a different result. The estimate of corn, at \$1,50, may appear to many overated, nevertheless, it is a fact, that corn of an inferior quality is selling with us at that price.

Yours very respectfully,

H. G. BOWERS.

N. B. Since writing the above, it occurred to me that, although in the preparation of seed corn, tar is recommended, chiefly as a protection against birds, it may also have another very important effect, (thereby saving a replanting in consequence of wet weather) in providing a coat, impervious to the superabundant water, until the sun shall, by its genial warmth, cause the germ to disengage itself from its confinement.

MANUFACTURE OF CHEESES.

MR EDITOR:—If you think that the following method of securing Cheeses from access to the skipper fly, so troublesome during the manufacturing season, will be of any service to your Cheese-manufacturing subscribers, you are at liberty to publish it in your valuable paper.—It is simply to form a firm coating of paper on the flat surfaces or ends. (I allude to those of cylindrical shape.) The kind of paper I use is a species of straw paper, of a smooth, yet a very firm texture. When this cheese is about to be put to the press for the last time, the paper is cut to the size of the surface to be covered. It is then wet or moistened, and spread smoothly upon the cheese. By this means it will fold a little over the edges upon the circular surface. The pressing cloth or envelope is then carefully applied, and also the hoop or mould. When the cheese is taken from the press, this paper will be found completely embedded in the surface by the texture of the cloth, which will separate from it with perfect exactness. Nothing further is necessary than to turn the cheese once a day, till the coating shall have acquired sufficient firmness by drying.

Lard or butter should be applied *only* upon the circular surface, to prevent the Cheese from cracking—as cheese if properly pressed, will swell or crown a little upon the surface. Hence the difficulty of applying the same coating to this part of the cheese likewise. Lard should be applied to the surface upon which it is to be used for a few days, until the cheese has got its *set*, otherwise the cheese while swelling, might crack. Cheeses should also be turned *often* while new and *regularly*, otherwise they acquire an irregular shape. There is no necessity for keeping them in a dark place, as no fly, with the aid of all the light, can possibly find a crack or crevice for its depositories. Respectfully yours,

C. COLEMAN.

February 13, 1837.

PRESERVING AND PRUNING MULBERRY TREES.—MR EDITOR.—Will you be so kind as to inform me, what is the best mode of preserving young Mulberry Trees that have been brought from a distance at this season, until the proper time for setting them out?

Also, the best time for pruning mulberries that have been some time transplanted and shamefully neglected? How a month or two months hence? Yours, &c.

NEOPHYTE.

By the Editor.—The above would have received earlier notice, had it not been accidentally mislaid. With regard to preserving young mulberry trees brought from a distance, and received in the winter time, we should suppose that the plants may well be set out in flower pots, the roots embedded in light loam, and the pots placed in a green-house or cellar; or perhaps they may be set out in trenches in the bottom of a cellar, to be transplanted as soon as the sap begins to rise in spring; and the ground in which it is intended the mulberry plants to grow, can be properly prepared.

With regard to pruning, it is directed so to manage that branch of the culture, as to remedy any imperfections which may exist in the form of the trees. Pruning should be performed once in two or three years.—June is the proper season for pruning, and the young branches which are taken off, will afford leaves for the worms.

AGENCY IN HALIFAX.—We take great pleasure in announcing to our numerous and respected friends in the province of Nova Scotia, that an arrangement has been effected with Mr Edward Brown, Halifax, to act as agent for the New England Seed Store. We have been induced to make this appointment, from a knowledge of

the growing interest which is felt there to obtain seeds, and every article necessary in Agricultural operations, from the United States, and not depend as formerly, altogether upon the mother country for supplies. Agriculture is improving in that province with a rapidity not equalled by the most favored part of this continent.—We hear of every indication of most prosperous success, in the efforts of its liberal citizens, and the government to arouse and encourage the people to agricultural pursuits. A late geological report, shows that the province is not poor in mineralogical possessions, and the soil is abundantly rich for yielding most of the staple productions of the earth. In the lighter and more pleasant branches of cultivation too, they are progressing. Experimental gardening is held in estimation by many enterprising gentlemen, who spare no pains to introduce new plants and flowers, for the floral garden, and new vegetables and roots for the kitchen garden. To show how far they have succeeded in this, we will cite from a letter written by a gentleman residing in Halifax, dated last 12th July. He says: "Yesterday we had cauliflower, early cabbages, and early peas; the first in the market, and earlier than I recollect in any previous season. My experiments are succeeding beyond expectation." Despite of cold climate, and short seasons, science and industry will plant an Eden in that province, and frugality and contentment will people it.

At Mr Brown's Store may be found a general assortment of seeds, and our friends, who are now at considerable expense, trouble and delay, to send to Boston, can be accommodated there with our seeds, &c., including many new varieties of flowers, and any order intended, for us from distant parts of the province for Trees, Shrubs, Plants, Grass and Field Seeds, if directed to Mr Brown, will meet with the same prompt attention, as though directed immediately to our address.

We trust that this arrangement will meet with satisfaction, and result beneficially to all concerned.

VALUABLE IMPROVEMENT.—We have been pleased in the examination of a highly important improvement of the Pump, invented by Mr Albert Bisbee, and manufactured by Mr Oliver Edwards, a mechanic of the north part of this city. It is a double acting suction and force pump, of wonderful power; with a cylinder two inches in diameter, and seven inch stroke. It is worked like a common pump, and by its double action, throws a continual stream. It has a capacity for discharging *fifteen gallons* per minute, and with a pipe attached, will force water upward of *seventy five feet perpendicular*. Its structure is very neat, we may say beautiful. The valves are less liable to get out of order than in any other pump, and when disordered, its construction is so simple that the merest tyro in mechanics can take it to pieces.

It can be fitted for any well, and is admirably calculated for factories, hotels and other large buildings.—With leading hose, water can be conveyed into every room in a house, be it ever so extensive, and in case of fire, in sufficient quantity to prevent many times, a terrible conflagration. What a safeguard it would be, attached to any building, especially in a large and compactly built city, where fires are so frequent. No building ought to be considered complete without it. It is also well adapted for a garden or fire engine; none other with which we are acquainted combines so many advantages. It is with pleasure that we chronicle this invention, and call the attention of our citizens to it.—We believe that the benefits accruing to the city, by its general introduction, will be very great. A destructive fire often sweeps away our buildings and thousands of property, when a timely and steady application of water at its first out-breaking would have saved them.

The Pump may be seen and further explained at the Agricultural Warehouse, 51, North Market st.

RUTA BAGA.—The crop of Ruta Baga which I have ventured for premium on one acre was raised in this town, on a piece of green sward interval, and the seed were sown about the 10th day of June last.

After the land was ploughed, I carted on 12 cords of green barn manure, which was spread upon the surface, and the whole again ploughed, and then harrowed—back-furrowed three feet distant and sowed in drills on the furrows, about one foot apart. After the second-leaf had set, the weeding process commenced, leaving two or three plants in a hill. The land being remarkably clear, it was not necessary to weed them a second time. The crop was harvested and secured in my cellar, on the 21st day of October, and there was above one hundred and eighty-nine bushels, good measure.

R. GORDON.

Dutton, Nov. 8, 1836.

[Letter from Judge Maison of Sing-Sing, to the Conductor of the Albany Cultivator.]

FATTENING SWINE.

We have lately seen an abundance of experiments and instructions for rearing and fattening swine; and it is fortunate for the farmer, that the almost despised apple, (after cider was entered on the list of proscription) is now being elevated to its proper rank and standing. The apple is found to contain nutriment enough, not for keeping alive only, but for actually fattening and hardening our porkers, and that too, without the aid of corn.—But like all other great discoveries, it will take some time and experience to reduce its importance to that simplicity and usefulness that will bring the expense to a level with its value.

The last direction I have seen, include boiling or steaming with a mixture of flour or meal, or some such expensive article. This may all do in our western or newly settled countries, where firewood and timber must be burned to get them out of the way; but when wood attains the value of six or seven dollars the cord, and coals eight or ten dollars the ton, it would be sheer nonsense to talk about steaming or boiling.

I too have tried some experiments in this way, and I find that apples for feeding, to give them their highest value, must be pounded or ground fine in a common cider mill, and then stand in tubs or vats, for the saccharine matter to evolve, which natural process will be effected in about twentyfour hours in warm weather, and from that to forty hours, as the fall weather grows colder, until freezing; and I will hazard the opinion, that one bushel of apples thus macerated, and passing through the incipient process of fermentation, will have acquired more nutriment and richness, than two bushels could impart if fed whole, or immediately after grinding.

Thus matured, the apples are ready for the swill-barrel, and with the addition of the wash and the wastage of the kitchen, or even clean water, till sufficiently diluted, will make a feed that hogs do become so fond of, as to leave ears of corn that may occasionally be given them, to fly to the trough for their favorite beverage. I have no doubt but the mass may still be bettered with the addition of bran, or shorts, or any sweeping of mills or granaries, the farmer may have on hand.

It is certainly very probable that a combination of the carbonic, or alkaliescent gases of the juices of the apple, gave rise to the opinion among some old farmers, that the cider made in their circular troughs, with a large wheel, was always softer and sweeter, than that of the nut mill, which many would not use; without any chemical knowledge or even thinking at that time, that the slower process of the large wheel made the difference they tasted in the liquor.

Thus when we find that a good orchard, with large pounders, or some cheap apparatus for grinding, would enable a farmer to winter a large number of hogs, and cattle, and poultry for breeding, or the spring market, when the high prices of grain will induce him to reduce his winter stock to the least possible number. If I was a farmer on a smart scale, I would go to the expense putting up a cheap building to accommodate some grinding machine, with a close cellar under the whole to receive the necessary apples for winter feeding, made tight, with good floor to preserve them from freezing through the cold weather.

PREPARE FOR SPRING.—As the season is fast approaching when Clover and other grass seeds will be sown, we deem it advisable to bespeak for their future pastures and meadows, from our agricultural brethren, a liberal bestowal of seed. He who sows *scantily* must expect to reap in a proportionate degree, or to gather more weeds than hay. In every soil there are ample supplies of the seed of every variety of wild and noxious herbage, and if these are not supplanted by a wholesome covering of artificial grasses, they will inevitably germinate, and show their pestilent fronts to the annoyance of proprietors, and the discomfort of their stock: for the earth will be busy in despite of all the maltreatment it receives at human hands.—*Farm. & Gard.*

SILK.—We have been shown some specimens of silk, from the Nantucket Factory. That completed in January 1836, is good, but thin; the specimens of 1837, display a very great improvement, and the twilled silk, which has a mixture of the nankin colored cotton, is an admirable article, and must soon be in general use. It is gratifying to see how rapidly and prosperously the silk looms are increasing.—*N. Y. Star.*

☞ A gentleman who has recently returned, after spending some weeks in the interior of this State, says that all the people there are doing their best to economize bread stuffs, and that the consumption of flour is exceedingly small. This is the effect of high prices.—*Jour. Commerce.*

FARMERS CAN DOUBLE THE VALUE OF THE STATE.

What say you to the above assertion, brother farmers? Have you faith enough in your own powers to try it? We have not the least doubt, but that if you really set yourselves about it, you can do it, and very easily too. You can make two spires of grass grow where but one grew before, and that too, without much trouble. You can double your crops of corn, and that too, with a proportional increase of profit. You can increase your crops of wheat, rye and oats, and you can sow twice as much as before, and find a ready market for all you can raise.

You can grow twice as much wool as is grown at present in the State, and sell it for cash down. You can plant the mulberry and grow silk, and from this single article alone, double the amount of cash now paid for the whole of the produce. All these things you can do, with a very little extra exertion, and thereby double the value of the State, in a very short term of years. We have said nothing of raising twice as many bushels of roots, and thereby being enabled to keep twice as many hogs, and causing them to make twice as much manure as now; but this too may be done.

We know of but one thing to prevent these things being done; and that is a belief among too many of our farmers, that they have arrived to perfection, both in knowledge and practice. Now so far from this being the case, we boldly assert, that there is no man in the State of Maine that yet knows, from practical experience, the powers of an acre of land, that is — what it is actually capable of being made to produce. We mean no disparagement to the intelligence and industry, or even skill, of our farmers in general, but we do say that they can both be wonderfully improved, and we have invariably found it to be the fact, that our best farmers are willing to acknowledge this, and are striving to improve themselves and their farms, and all about them, but there are so many *self-satisfied* ones, holding back and triggling the wheels of those who would do better, that it is at least an uphill work for them. What is the source of wealth either public or private? Judge Buel says it is land and labor, and he adds the following sentiment, which ought to be treasured up in the minds of every farmer in the world. "The more fertility we can impart to the one, and the more intelligence we can infuse into the other, the greater will be the returns they make, and the greater our means of happiness; for it is wealth rightly employed that enables us to multiply not only our own, but the comforts and happiness of those around us."

At this point we will leave the subject for your consideration, proposing to take it up more fully another time.—*Maine Farmer.*

THOMAS G. FESSENDEN, ESQ.—*Sir*:—In your *Silk Manual* for the present month, page 135, there is a piece "on selecting seed," wherein the writer says, that "during the last few years, many losses have been sustained in the potato crop, in consequence of using unripe seed." I have been conversant with raising potatoes for fifty years, and this is the first time of my hearing that potatoes need to be ripe to vegetate. The writer has not

said they will not vegetate, but an entire failure of a crop I think must mean that. I will give you a little of my experience. I have a number of times had my crop of potatoes lessened one half, by the tops being killed by the drought, and not fit for the table; and yet those half grown potatoes came up the next year as well as any other. One year my potato tops were all killed by drought before the bulbs were half grown, and there came a soaking rain before the time of year to harvest the crop, and not long after, on going into the field, I found, to my surprise, that my potatoes were coming up; that is, there were green shoots from the hills. On examining, I found they proceeded from the new half grown potatoes. I planted the same the next spring, and they came up as well as any. This is stated to show that it is not necessary that a potato should be so ripe as to be good for the table, in order to have it vegetate the next season. You may cut all the outside off of a potato, and plant the middle, and it will come up. So I have taken an ear of corn from the field, when it was just beginning to harden at the ends of the kernel, hung it in a dry place, planted it the next season, and it came up well. But notwithstanding, I choose good full grown seed of every kind, not because it comes up any better, but because it produces a more stocky, vigorous plant, than with small seed, and is likely to produce a greater crop. You will dispose of this as you please: it is immaterial to me, whether you "lay it on the table," or throw it under, or dispose of it in any other way. A FARMER.

Westboro', Feb. 14, 1837.

By the Editor.—There is a difference in opinion among agricultural writers, on the subject of ripe and unripe potatoes for seed. Some maintain the opinion expressed in the article in *Fessenden's Silk Manual*, p. 135, alluded to by our correspondent. In this, the following passage occurs:—"The brevity of the present summer, and early frosts, have, to a very great extent, rendered the products of the soil not only unprofitable for consumption, but wholly unfit for seed. During the last few years, many losses have been sustained in the potato crop, in consequence of using unripe seed."

The writer of an article originally published in *Loudon's Magazine*, and transcribed into the *N. E. Farmer*, vol. xiii. page 173, states as follows: "I consider tubers well matured, preferable for planting, because in them the embryo of the future plant is more perfect than those not yet arrived at a state of maturity," &c.

On the other hand, an English cultivator, in an article first published in *Loudon's Magazine*, and republished in the *N. E. Farmer*, vol. v. page 409, asserts as follows:—"Preferring *unripe* potatoes

for seed, is not new in practice—it has for ages prevailed," &c. And in a letter from William Moody to the Hon. Josiah Quincy, published in the 4th volume of the Massachusetts Agricultural Repository, the writer observes that "late planted potatoes which are gathered in before ripe, are far the best for seed the next year." And an English writer in London's Magazine, an article republished in the N. E. Farmer, vol. v. p. 409, states that the "ripe potato, having performed all its operations, becomes more inert; but the circulation of the sap in the unripe tuber having been stopped, it starts more readily, and with greater vigor when planted; the one seems to die, worn out with age, the other seems accidentally to have fallen asleep, and when awoke, possesses an unspent vigor and energy."

It would be well if some of our cultivators would ascertain the experiment, the disputed point whether ripe or unripe potatoes are to be preferred for seed.

FARMERS' WORK.

FENCES—should be surveyed, and their defects rectified, before cattle are permitted to wander over the farm. "A stitch in time saves nine," is an expressive adage, particularly applicable to making and mending fences. If cattle or sheep are once accustomed to low or insufficient fences, they will hardly be restrained by these of the best quality.

It has been practised by some farmers to make fencing posts very durable by the following simple process: They bore a hole with an inch auger in that part of the post, which, when set will be just above the surface of the earth, with such a slope as will carry it downward two or three inches. They then fill the hole with salt, which, we are told, will preserve the timber from decay a very long time.

In making fences of posts and rails, which in many parts of the country are best, it is advised by Mr Preston of Stockport, Penna., to set the posts with the top parts in the ground, and he asserts that they will in that position, last three or four times as long as when they are set with the butt ends down. He advises also, in making fences, always to place the rails with the heart side up.

The best timber for rails, according to Doctor Deane, is red cedar. It is easy to split, light to carry and handle, sufficiently strong, and the most durable of any.—In the Transactions of the Society of Arts in England, there is an account which states in substance, that posts of oak, and others of chestnut, were set down in Somersetshire, where they had to undergo repairs in eighteen years. The oak posts were then found to be unserviceable, and the chestnut very little worn. The oak posts were renewed, the chestnut remained, and in twenty-five years afterwards, they were not so much rotted as the oak.

If the lower ends of posts are scorched before they are put into the ground, they will last the longer. Some recommend soaking them in sea water to keep them from rotting. The posts should be set at least two feet in the ground. Some farmers cut their posts so long, and moisten them in such a manner, that they can turn them upside down, when the lower ends become rotten.

When ground is wholly subdued, and the stumps of its original trees quite rotted out, stone walls, if well made, are the best and cheapest fences. On hard, san-

dy or gravelly soil, a wall will stand many years without repairing. On a clay or miry soil, the foundation should be laid in a trench, nearly as low as the earth freezes. But a wall of flat or square shaped stones will generally stand on any soil, if placed on the surface.

A writer for the Genesee Farmer, gives the following directions for "Planting Posts for Garden Fences, &c."

Instead of filling the holes up with the earth taken out in digging them, I would recommend filling in around the posts with leached ashes instead of common earth, and topping off with 5 or 6 inches of unleached ashes above the surface of the ground; for it is generally between *wind and water*, as the sailors term it, that garden-posts begin to decay. My reason for recommending ashes is, that I have frequently found pieces of board, hoops and staves buried under heaps of leached ashes, which had lain there many years, and were quite as sound as when first buried. No doubt many of your readers have observed the same, in removing old ash heaps near potash works.

RAISE MORE CLOVER SEED.—*Mr Editor*:—Since it has been discovered that the article of wheat can successfully be raised on a clover ley, which clover ley cannot be produced without clover seed, which is now known to be dear, and scarce, owing, no doubt, principally to fodder having been very dear in the year 1835–6; therefore farmers saved none of their grass for seed. The summer following, calculating on hay bringing a great price in all after time, they raised very little hay seed, and sold off such great quantities of stock, and comparatively few months being left to consume hay, of course it has become reasonably low in market. This, therefore, is a favorable time to urge the raising of clover seed the ensuing summer; by which means much more wheat will be raised, and we Farmers shall not be under the needless necessity of "going to New York to mill."

Since clover seed has become so valuable an article, we need not fear loss by raising it.

Maine Far.

WHEAT CROPS.—It is yet too early to form any decisive opinion respecting the growing wheat crop, but we are sorry to learn from various parts of Virginia, that the prospect is poor; and that some are procuring spring wheat to sow, while others propose to sow the common wheat as soon as the frost leaves the ground. Another failure of crops there must inevitably produce much suffering, as they have not had a full crop for several years.—*Zanesville Gaz.*

SEWING SILK.—The manufacture of American Sewing Silk is becoming important, and the article is obtaining the best reputation. The Silk Company at Northampton, are manufacturing at the rate of \$200 per day, and yet cannot supply the demand. We are pleased to learn that a Company has been incorporated to grow and manufacture the same article in West Springfield.—*Northampton Cou.*

GENERAL PRINCIPLES OF REARING, MANAGING AND FEEDING DOMESTIC ANIMALS.

After the birth, the first interference on the part of man, should be that of supplying the mother with food of a light and delicate quality, compared to that which she had been in the habit of using, and also of administering the same description of food to the offspring, so far as it may by its nature be able to use it.—The general treatment should accompany these operations; and the opportunity taken of familiarizing both parent and offspring with man, by caressing them, or at least by familiar treatment on the part of the attendant.

As the animal increases in size and strength, they should have abundance of air, exercise and food, according to their natures; and whatever is attempted by man in the way of taming or teaching, should be conducted on mild and conciliating principles, rather than on those of harshness and compulsion.

FOOD.

Food, though it must be supplied in abundance, ought not to be given to satiety. Intervals of resting and exercise must be allowed according to circumstances. Even animals grazing on a rich pasture, have been found to feed faster when removed from it once a day, and either folded or put in an inferior pasture for two or three hours. Stall-fed cattle and swine will have their flesh improved in flavor by being turned out into a yard or field once a day; and many find that they feed better, and produce better flavored meat when kept loose under warm sheds or hammels, one or two in a division, a practice now very general in Berwickshire.

In general it may be observed, that if the digestive powers of the animal are in a sound state, the more food he eats, the sooner will the desired result be obtained; a very moderate quantity beyond sufficiency, constitutes an abundance: but by withholding this additional quantity, an animal, especially if young, may go on eating for several years, without ever attaining to fatness.

GROWING ANIMALS.

In young growing animals, the powers of digestion are so great, that they require less rich food than such as are of mature age; for the same reason also they require more exercise. If rich food is supplied in liberal quantities, and exercise withheld, diseases are generated, the first of which may be excessive fatness.

Common sense will suggest the propriety of preferring a medium course between very rich and very poor nutriment.

Salt, it appears, from various experiments, may be advantageously given to most animals, in very small quantities; it acts as a whet to the appetite, promotes the secretion of bile, and in general, is favorable to health and activity. In this way on-

ly can it be considered as preventing or curing disease; unless perhaps in the case of worms, to which all saline and bitter substances are known to be injurious.

Where a sufficient degree of warmth to promote the ordinary circulation of blood is not produced by the natural climate, or by exercise, it must be supplied by an artificial climate. Houses and sheds are the obvious resources both for this purpose, and for protection from extremes of weather. Cold rains and northerly winds are highly injurious, by depriving the external surface of the body of caloric more rapidly than it can be supplied from within by respiration, and the action of the stomach; and also by contracting the pores of the skin, so as to impede circulation. When an animal happens to shed its covering, whether of hair, wool or feathers, at such inclement seasons, the effects on its general health are highly injurious. The excessive heats of summer, by expanding all the parts of the animal frame, occasion a degree of lassitude, and want of energy even in the stomach and intestines; and while the animal eats and digests less food than usual, a greater waste than usual takes place by perspiration. Nature has provided trees, rocks, caverns, hills and waters, to moderate these extremes of heat and weather, and man imitates them by hovels, sheds and other buildings, according to particular circumstances.

AIR AND WATER.

Good air and water it may seem unnecessary to insist on; but cattle and horses, and even poultry pent up in close buildings, where there are no facilities for a change of the atmosphere, often suffer on this account. A slight degree of fever is produced at first, and after a time, when the habit of the animal becomes reconciled to such a state, a retarded circulation, and general decay or diminution of the vital energies takes place.

MODERATE EXERCISE.

Moderate exercise ought not to be dispensed with, where the flavor of animal produce is any object: it is known to promote circulation, perspiration and digestion, and by consequence to invigorate the appetite. Care must be taken, however, not to carry exercise to that point where it becomes a labor instead of a recreation. In some cases, as in feeding swine and poultry, fatness is hastened by promoting sleep and preventing motion, rather than encouraging it, but such animals cannot be considered healthy fed; in fact their fatness is most commonly the result of disease.

TRANQUILLITY.

Tranquility is an obvious requisite, for where the passions of brutes are called into action, by whatever means, their influence on their bodies is often as great as in the human species. Hence the use of castration, complete or partial separation, shading from too much light, protection from

insects, dogs, and other annoying animals, and from the too frequent intrusion of man.

CLEANLINESS.

Cleanliness is favorable to health, by promoting perspiration and circulation. Animals in a wild state attend to this part of their economy themselves; but in proportion as they are cultivated or brought under the control of man, this becomes out of their power; and to insure their subserviency to his wishes, man must supply by art this as well as other parts of culture. Combing and brushing stall-fed cattle and cows, is known to contribute materially to health; though washing sheep with a view to the cleaning the wool, often has a contrary effect from the length of time the wool requires to dry. * * *

COMFORT.

Unquestionably, an animal may be well fed, lodged and cleaned, without being comfortable in every respect; and in brutes, as well as man, want of comfort operates on the digestive powers. If the surface of a stall, in which an ox or a horse stands, deviates much from a level, he will continually be uneasy; and he will be uneasy during the night, if its surface is rough, or if a proper bed of litter is not prepared every evening for him to repose on. The form of racks and mangers is often less commodious than it might be.—A hay rack which projects forward is bad; because the animal in drawing out the hay is teased with the hay seeds falling in its eyes or ears; and this form, it may be added, is apt to cause the breath of the animal to ascend through its food, which must after a time, render it nauseous. For this reason, hay should lie as short a time as possible in lofts, but when practicable, be given direct from the rick.

SILK CULTURE IN MAINE.

By the following extract from the Report of the Committee on crops, of the Penobscot Agricultural Society, it will be seen the climate of Maine throws no insurmountable obstacle in the way of the silk grower. The town of Newport is situated between the Kennebeck and Penobscot rivers, at about equi-distance from each, and within a few miles of the 45th degree of latitude. "Your Committee take great pleasure in making known the enterprise of individuals in Newport for the production of silk. The three nurseries entered for premiums, speak well for the foresight manifested in a branch of industry which bids fair to rival almost any other in the United States.—Maine has too long and too often looked on the exertions and enterprise of other sections with folded arms, and seen their labors crowned with success, before attempting any thing herself.

There is a branch of industry springing up, which may be engaged in by any owner of land, with little or no capital. The first thing is to

make a bed, 50 by 4, rich, and sow an ounce of mulberry seed, which produces 5000 plants—then an acre of land, in good condition for corn or potatoes, is sufficient for the plants in hedge. Here is the capital invested. Let one half of what is said in regard to profits be true, and two or three females, in eight weeks, will realize a sum sufficient to support a decent sized family a year.—Your Committee were shown samples of the trees from the nursery of Mr E. B. Shaw, and found not the least appearance of suffering by our winter. They think the time may come, when, as our fair daughters are about to leave the paternal roof, and become bone and flesh of another, the question of which cow, how many sheep, how many beds, blankets, sheets, &c., shall she have, will not be the only one discussed in the family circle; but in addition to all this, how many suits of silk curtains, pairs of hose, gowns, cloaks, quilts and counterpanes, which have been made in the family. Your Committee leave this subject with regret, because if wealth and independence are a blessing, they may be possessed by many who are now comparatively destitute."

The Committee awarded the first premium of \$3, to Enoch C. Shaw, the second of \$2, to John Wilson, and also recommended a gratuity of \$2, to Benj. Shaw, for the 3d best mulberry nursery.—*Silk Cult.*

MEETING OF THE AGRICULTURAL SOCIETY.

The annual meeting of the Hampshire, Franklin and Hampden Agricultural Society was holden on Wednesday March 15th, 1837, at which time the Hon. *Samuel Lathrop* was unanimously elected President for the year ensuing.—Messrs. H. G. Bowers, Wm. Clark, Jr., Charles Stearns, Esq., Timothy Smith of Amherst, and T. P. Huntington of Hadley—*Vice Presidents.* D. Stebbins and J. H. Butler—*Secretaries.* S. L. Hinckley, *Treasurer.*

Messrs. Roswell Hubbard, Aaron Ashley of W. Springfield, and Oliver Warner of Hadley—*Committee on Agriculture.*

Messrs. Nathaniel Eager of Worthington, Lucius Clapp and George Cook—*Com. on Animals.*

Messrs. Elijah Powers, Joseph Lathrop and Joseph Clark—*Com. on Manufactures.*

PREMIUM CROPS.

The first premium on the greatest quantity of waste and wet land reclaimed, was awarded to Rev. Dan. Huntington of Hadley.

Do. on the greatest quantity of Corn raised on a whole Farm, to William Clark, Jr. of Northampton.

Do. on the greatest quantity of Corn from an acre of old land, to Henry G. Bowers of Northampton.

Although many other premiums were offered on Crops, no claims were made therefor.

The land reclaimed by Mr. Huntington, a few years since was a most unpromising tract of about twelve acres, which was "deformed and worthless—a swamp of bogs, brakes and bushes—the haunt

of snakes, frogs and mud turtles—is now a handsome lawn, fit for pasture or tillage.” A description of the management may hereafter be laid before the public.

The Corn Land of Mr. Clark was cultivated in his usual method, *without ploughing among the Corn, or making hills*,—by the aid of ashes and plaster, and no other manure used. The management of Mr. Bowers is fully described in the papers devoted to agriculture, and is the only true way to ascertain the profit or loss of any land, in the mercantile way of debt and credit. His claim was presented in such a business-like form, that we presume it must be gratifying to all lovers of system. He has by diligent enquiry and examination, obtained the experience of several corn growers, with the view of ascertaining the cost of raising corn with us, and then contrasting the same with the culture and value of the same at the west; we hope he will in due time, publish the result, because we feel confident it may excite our Farmers to a more critical, systematic and profitable mode of culture. And when our farmers shall avail themselves of the very liberal bounties offered by this Commonwealth, for the encouragement of the manufacture of *Silk and Beet Sugar*, we trust the complaint of hard times will seldom be heard.—*Northampton Courier*.

EXPERIMENT WITH DUTTON CORN.—We omitted so much of the article, by Mr. Bowers, giving the result of his experiment with Dutton Corn, published last week, that perhaps the mode of conducting the experiment is not plain. The roller was used on the ground, and the seed prepared by rolling in hot tar. The heat of the tar did not injure the seed—it all came up. The corn was planted in hills two feet and a half apart, and four stalks in a hill. The corn was not topped, and was cut up about the 20th of Sept.

This experiment of Mr Bowers is worth attention. He obtained, it will be recollected, 102 1-2 bushels on an acre, with little or no more labor and expense, than is usually attending the cultivation of an acre of corn, where but 40 bushels are harvested.—*Hampshire Gazette*.

SILK WORM EGGS.

Those who are about attending to the rearing of the Silk Worm, are informed that the subscriber has received from the south of France, a few ounces of the Eggs in very fine order; price \$10 per ounce, which it is believed is very much lower than they have ever before been offered, it being necessary in the warm and confined premises of John Street, to get them off, otherwise they will set up business for themselves. One ounce numbers 5000 eggs—can be forwarded per mail packed between a small leaf of wadding, or if by water conveyance in a small tin box.

Also, received from France, 5000 *Morus Multicaulis* Trees, 2 years old, price \$20 per hundred, in prime order.

GEO. C. THORBURN, 11 John Street.

New York, March 29.

31

SEED POTATOES.

For Sale at the New England Seed Store, a few Bushels of Forty Fold Potatoes, a superior and prolific variety.

St. Helena Potatoes.

Early Hill Potatoes, the best early potato in the Market.

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MULBERRY SEED FROM ASIA.

For Sale at the New England Seed Store, a small lot of Asiatic Mulberry seed at \$5 per oz. and in packages of 1-4 oz. at 1.25. The following note will inform our customers as much or more than we can tell them.

“Messrs Jos. Breck & Co. Gentlemen, I send you a lot of Mulberry seed which please sell on my account. It was sent from Brousa, Asia, and represented to be of the best quality. The seed is large and full. You are aware that the Asiatic Mulberry, differing from the well known Chinese or *Morus Multicaulis*, is held in high estimation by the natives and considered by them to be inferior to none for its productiveness, and superior adaptation for feeding silk worms. This is undoubtedly that variety.”

We have tested the seed, and can assure buyers, that there be no doubt of its vitality. JOSEPH BRECK & CO.

March 15.

COUNTRY SEAT AND FARM.

The subscriber offers for sale, his Estate, situated on Jamaica Hill, Jamaica Plain Parish, Roxbury, five miles from Boston common—formerly the estate owned and occupied by Gov. Samuel Adams. The Farm contains fifty acres of land, well supplied with a number of never failing springs of water, and for farming purposes is one of the best farms in the county. The House is new, large and convenient, calculated for summer and winter residence, built of the best seasoned materials, and all the labor paid by the day, consequently is a first rate house. Barns and out-buildings all in good order, and convenient.

For purity of air, for extensive and beautiful prospects, this situation has no equal in New England, and is an inviting situation to a gentleman of taste. H. COWING.

March 15, 1837.

BRIGHTON NURSERIES.

For sale, 20,000 *Morus Multicaulis*, or Chinese Mulberry Plants, warranted the true and genuine kind. Orders addressed (by mail) to Messrs. WINSHIP, Brighton, Mass., for Mulberry, Fruit and Ornamental Trees, Shrubs, Creepers, Herbaceous Perennials, &c. &c. that are cultivated in any Nurseries in the United States, with a first rate collection of Green House Plants, will receive prompt attention, and, if required, forwarded to any part of the Union.

Brighton, Jan. 18, 1837.

MOUBRAY ON POULTRY, &c.

Moubray on Breeding, Rearing and Fattening all kinds of Poultry, Cows, Swine, and other Domestic Animals. See it American from the sixth London Edition. Adapted to the Soil, Climate and Culture of the United States. By Thomas G. Fessenden, Editor of the N. E. Farmer, New American Gardener, Complete Farmer, &c.

This book, published by Joseph Breck & Co. Boston, and G. C. Thorburn, New York, is for sale at the respective establishments of those Gentlemen. The first edition of this useful book had a rapid sale, and met with a favorable reception. It has been carefully revised, and new and original information relative to its topics have been diligently sought and inserted in various parts of the Treatise.

March 15, 1837.

BRIGHTON MARKET.—MONDAY, March, 27, 1837.

Reported for the New England Farmer.

At Market 250 Beef Cattle, 39 pairs Working Oxen, 190 Sheep and 175 Swine.

Prices.—*Beef Cattle*.—Last weeks prices were fully supported. A larger number were probably sold at the highest prices. We quote extra at \$9.00; first quality \$8 25 a 8 75; second quality \$7 75 a 8 25; third quality \$6 75 a \$7 50.

Working Oxen.—A large number were sold. We notice the following prices per yoke, viz. \$70, \$85, \$90, \$95, 110, 117, 132, 145, and 180.

Sheep.—Two lots were taken at \$6 50 and \$8 62.

Swine.—Several lots were sold at 10 1-2 for sows and 11 1-2 for barrows. At retail 11 1-2 and 12 1-2.

N. B.—We omitted to notice last week a beautiful heifer, three years old, raised and fed by Col. Whitney, of Princeton, which was sold for \$90.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northernly exposure, week ending March 25.

MARCH, 1837.	7, A. M.	12, M.	5, P. M.	Wind.
Sunday,	28	32	28	W.
Monday,	18	32	28	N. E.
Tuesday,	28	42	32	N. E.
Wednesday,	32	35	32	N. E.
Thursday,	32	36	34	N.
Friday,	32	42	32	N.
Saturday,	27	48	46	N.

The New England Farmer and Gardener's Magazine.

Published at the Horticultural Register Office, Boston, Mass. T. G. FESSENDEN, Editor. Price \$2 50 per year, in advance, or \$3 00 if payment is delayed until the end of the year.

This work has now entered upon its fifteenth year, and the increasing patronage and favor bestowed upon it from its commencement to the present time, convinces the proprietors, that their exertions to please have not been unavailing, and stimulates them to renewed exertions to maintain the interest and character of the sheet.

We give the weekly reports of the proceedings of the Massachusetts Horticultural Society; a price current of country produce, corrected with great care, weekly; and the report of the Brighton Cattle Market, which greatly enhances the value of the paper.

We are constantly receiving all the new agricultural publications that are issued from the American and English presses, and our exchange list is very extensive with all parts of the union. By these facilities we keep our readers informed of every new discovery in the progress of culture, and all useful knowledge pertaining to the great art which it is our object to advance.

The numerous encomiums from contemporary presses in the United States, show the estimation in which it is held by them.

NURSERY OF WILLIAM KENRICK.

Mountain Hill in Newton.



34,000 *Morus Multicaulis*, or true Chinese Mulberry Trees, can yet be supplied, wholesale or retail.

4,000 Pears of new Flemish and other finest kinds. Pears on Quince stocks, thrifty and handsome, these will bear early and abundantly.
3,000 Plums—Also selections of all other hardy fruits from the first rate so trees and the finest varieties known.

Ornamental trees, shrubs and roses. Also Herbaceous flowering plants of the most beautiful varieties including Pæonies, and Double Labials.

Address by mail, post paid, to WILLIAM KENRICK, Newton, Mass. near Boston. Trees and plants when ordered, will be carefully selected, and labelled, and packed in the best style, and duly forwarded from Boston by land or sea. Transportation gratis to the city. Priced Catalogues will be sent to all who apply.

March 29.

WANTED.

A first rate single man to go on to a farm. He must be industrious, trust-worthy, skillful, and sober. To such a man the best wages and the best treatment will be given. Apply at the Farmer Office soon.

March 8, 1837.

WANTED.

A Gardener — who understands his business, and is capable of taking charge of a green house and garden. A married man would be preferred, — good recommendations will be required.

South Salem, March 8, 1837.

E. HERSEY DERBY.

PRICES OF COUNTRY PRODUCE,

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO		
APPLES,	barrel	1 75	2 25		
BEANS, white,	bushel	2 50	3 00		
BEEF, mess.	barrel	15 50	16 50		
No. 1.	"	13 00	13 75		
prime,	"	9 57	10 30		
BEEFWAX, (American)	pound	31	33		
CHEESE, new milk,	"	10	12		
FEATHERS, northern, geese,	"	54	60		
southern, geese,	"	51	60		
FLAX, American,	"		9 12		
FISH, Cod,	quintal	3 37	3 50		
FLOUR, Genesee,	barrel	12 25	12 50		
Baltimore, Howard street,	"	11 25	11 50		
Baltimore, wharf,	"	11 00	11 25		
Alexandria,	"	11 25	11 50		
GRAIN, Corn, northern yellow	bushel	1 12	1 20		
southern flat yellow	"	1 05	1 07		
white,	"	1 00	1 12		
Rye, northern,	"	1 50	1 75		
Barley,	"	1 10	1 25		
Oats, northern, (prime)	"	65	70		
HAY, best English, per ton of 2000 lbs		22 50			
hard pressed,	"	15 00	16 00		
HONEY,	gallon	52	55		
HOPS, 1st quality	pound	8	9		
2d quality	"	7	8		
LARD, Boston, 1st sort,	"	14	15		
southern, 1st sort,	"	14	15		
LEATHER, Philadelphia city tannage,	"	30	32		
do country do	"	26	28		
Baltimore city do.	"	27	29		
do. dry hide	"				
New York red, light,	"	24	26		
Boston do. slaughter,	"	21	23		
do. light,	"	19	21		
LIME, best sort,	cask	1 25	1 30		
MACKEREL, No. 1, new,	barrel	10 00	10 50		
PLASTER PARIS, per ton of 2200 lbs.	cask	3 75	3 25		
PORK, Mass. inspect. extra clear,	barrel	30 10	31 00		
clear from other States	"	27 00	29 00		
Mess,	"				
SEEDS, Herd's Grass,	bushel	2 87	3 12		
Red Top,	"	70	75		
Hemp,	"	2 50	2 75		
Red Clover, northern,	pound	15	16		
Southern Clover,	"	11	15		
SILK COCOONS, (American)	bushel	2 75	4 00		
TALLOW, tried,	lb.	12	14		
TEAZLES, 1st sort,	pr. M.	3 50	4 00		
WOOL, prime, or Saxony Fleeces,	pound	70	75		
American, full blood, washed,	"	65	70		
do. 3-lths do.	"	60	65		
do. 1-2 do.	"	55	58		
do. 1-4 and common	"	45	50		
Northern pulled.	{	Pulled superfine,	"	60	65
		1st Lambs,	"	55	60
		2d do.	"	15	48
		3d do,	"	30	35
Southern pulled wool is generally 5 cts. less per lb.					

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	15	16
southern, and western,	"	13	14
PORK, whole hogs,	"	10	13
POULTRY,	"	13	19
BUTTER, (tub)	"	22	25
lump	"	21	25
EGGS,	dozen	23	35
POTATOES,	bushel	75	1 00
CIDER,	barrel		

BREMEN GEESSE.

Bremen and Wild Geese for sale by JOHN PARKINSON, Back street, Roxbury. March 15.

FESSENDEN'S SILK MANUAL

AND

PRACTICAL FARMER.

Devoted to the Culture of Silk, Agriculture and Rural Economy.

VOL. II.

BOSTON, APRIL, 1837.

NO 12.

PUBLISHED MONTHLY BY

JOSEPH BRECK & CO.

51 & 52 North Market St., at the N. E. Farmer Office.

T. G. FESSENDEN, EDITOR.

Fifty cents per year—twelve copies for five dollars—always in advance.

Postmasters and Agents allowed 10 per cent on all subscribers.

BOSTON, APRIL, 1837.

(From the Genesee Farmer.)

SILK AND THE MULBERRY.

Some individuals seem disposed to sneer at the idea that the silk business can ever become of much consequence to the country, or that such small beginnings as we at present witness, can ever grow into establishments able to compete with the long and permanently fixed ones of France or England. For ourselves, we think differently of the enterprise. Unless individuals should be so cheated and humbugged by men who care more about making money, than the benefit of the silk business, as to cause a prejudice against the whole affair, the time is not distant when American ingenuity, and American skill, will produce fabrics which will vie with the best of those from abroad. Difficulties which have required centuries to overcome in France and other parts of the world will not retard us as many years; as the business of raising silk is now so extremely easy and simple, so the reward will be ample. During the last year the quantity of silk imported amounted to about seventeen millions of dollars, and a manufacture which shall eventually save this amount to the nation, should not be treated as an affair of little moment. The history of the silk trade and business in France, was given a few years ago, in a work written by Mr Maret. From this work it appears that the first mulberry tree was brought into France and planted during the time of the crusades, by *Guipape* of St. Auban, Lord of Allan, three leagues from Montmeliart. This iden-

tical tree was living in 1810, when the owner of the premises, M. De La Tour du pay-le-Chaux, caused this monument of antiquity and venerable parent of French mulberry to be preserved and respected, by having a low wall built around it, and forbidding its leaves to be gathered. The cuttings or descendants of this tree now cover the soil of France, and produced to the State in 1810, a revenue of more than 100 millions of pounds of raw silk, and more than 400 millions of francs in industry, an amount greatly increased since that time. Only let silk growers be careful how they suffer themselves to be hoaxed by designing speculators, and by pursuing the business steadily and prudently, gathering experience, and correcting the errors of a new and untried business by the published results of the labor of others, they will find themselves in the road to competence and independence.

SILK CULTURE.

Mons. Tinelli, an Italian gentleman, (who was a sojourner here during a greater part of last winter,) has just published in New York a neat little work of 54 pages, entitled "Hints on the cultivation of the Mulberry, with some general observations on the production of silk." The author has politely sent us a copy, which we have perused with much pleasure, as it affords many, to us, new and very useful facts in relation to the culture of the mulberry and silk, and the rearing of worms.

This subject, which, for a few years past has elicited the attention of many enterprising men in this country, and especially in the eastern states, is as yet but little understood, and it is for that reason that the introduction among us of this important branch of commercial industry is so tardily effected. For a want of proper knowledge of the first principles necessary to be known to make the culture of silk profitable, many who have undertaken it have become discouraged, and desisted, from the belief that the receipts would

not balance the expenses, and willingly charged a part of the cause of their failure to the uncongeniality of the climate. But the experience of foreigners who have been engaged in the business, tells us that no climate in the world is better adapted than ours for prosecuting the silk culture; and among these evidences we need not look for higher authority for the truth of such assertions than Mons. Tinelli, who, having had 30 years' experience as proprietor and superintendent of a Filature of Silk in Lombardy, and an official station in the University of Pavia, has had every opportunity to know, both by theory and practice, every thing connected with the subject, is eminently fitted to judge correctly. In the work in question, he has shown conclusively that cold climates (which objection has been raised against the northern states of our Union,) are not only congenial to the growth of the *Morus multicaulis*, but are far better for the rearing of worms and other important matters connected with the business, than the torrid regions of the South. The northern and western states lie within the temperate zone, and consequently they are best adapted for the purpose.

That the business may be made profitable not only to individuals but to the nation, if properly prosecuted, cannot be doubted. Mons. Tinelli makes the following interesting statement, which we have taken the liberty to extract. In another place, he exhibits a table, showing that in 1832-3 and '4, the average exportation of silk from the single Lombardy-Venetian kingdom, was 5,334,202 pounds yearly, which, calculated at \$3 per pound, makes the sum of \$16,002,606! But to the extract:

"In order to be within bounds, I will take the case of a farmer who owns merely a small house sufficient for the residence of his family, and about ten acres of land. Without the least sacrifice or diminution of the productiveness of his little farm, if he would merely surround it with a hedge-row of Mulberries, planted with judgment and according to the best methods, it is certain that it would cost him to do so only a few days of labor and a few dollars of expenditure for the purchase of the trees, but the beauty and the value of his farm would be immensely improved. At the end of the third year, the trees will have arrived at such a growth as to furnish leaves in considerable abundance. Supposing that they produce leaves enough only to feed the silk worms from two ounces of eggs, yet such a number if carefully nurtured would yield, at a moderate estimate, one hundred and seventy-five pounds of cocoons, which at twenty cents a lb. would give a profit of \$63 6-100ths.—The care of so small a number of worms would not be a great burthen to the farmer. One woman, with the assistance of a boy, for the labor of gathering the leaves during five weeks, would

suffice. Nor would it be requisite to enlarge the house for the accommodation of the worms. The kitchen or the sleeping room, if well ventilated, would be sufficient to contain the worms from two ounces of eggs, without inconvenience. The fixtures necessary for the accommodation of the worms would be so trifling that their cost can scarcely be calculated, especially as the expense would be incurred only in the first year. From this little calculation made on an experiment so limited, it is estimated how greatly profitable it would be for farmers and proprietors of extensive grounds to cultivate the silk worm in greater quantity, where they might have plantations of the Mulberry on a larger scale."

This work is only a part of a much larger one upon the subject which the author purposes to publish. The present publication should be purchased by every person interested in the culture of silk or of the mulberry.—*Poughkeepsie Telegraph*.

HAMPTON, Windham Co. (Conn.) }
March 17, 1837. }

MR FESSENDEN,—Dear Sir:—Having entirely failed of a crop of Corn last season, in consequence of the early frost, and being desirous of obtaining a kind of seed that will ripen sooner than the common kind, you will do me a particular favor by informing me through the medium of your paper, what kind is the most productive: and at the same time, will come to maturity a few weeks sooner than the kind that has generally been used by the farmers in Connecticut. By complying with the above, you will grant the request of
MANY.

[The complaint above set forth is general. We have inserted in several of our last papers, accounts of the Clark and Dutton Corn, which state that they are much earlier than our common corn, ripening the last of August. The Lathrop or Phinney Corn, is another variety well worthy of being cultivated. It is about as early as the two first named, and differing from them only in their small, dwarfish stalks and light foliage. The Canada Field Corn, small ears, is much earlier than the common, and when obtained from the North, rarely disappoints the expectant farmer of a crop, even in the shortest and most unfavorable season. All of the kinds above mentioned, may usually be obtained at the Seed Store connected with this office.]

NEW AND HIGHLY USEFUL INVENTION.—Two gentlemen of this town, have lately invented a new method of opening and shutting Window Blinds, which, it strikes us, is highly useful. The object attained, is that of opening and shutting the blind without opening the window. Whoever has been obliged to rise of a cold frosty windy wintry night to shut a flapping blind, and has been made to shiver all night by the exertion; or whoever has been obliged to stick his head and shoulders out of a window into the face of a hail storm, to save his windows by shutting blinds, must feel grateful to the ingenious inventors of this new blind fast. The object proposed is fully attained: the blind is opened and shut, is secured without trouble, and without the admission of wind or wet. The whole is of very simple construction, and constitutes an ornament of the interior of the room. The inventors are Messrs Isaac and Rufus Hosmer.—*Concord (Ms.) Gaz.*

Mr. Grant's New Work on Americans.
AMERICAN BOYS.

An American of ten or twelve years of age, is as much of a young man as an European at sixteen; and when arrived at that age, he is as useful in business, and as much to be relied on, as a German at 24, or a Frenchman at 50. Something similar to it may also be found in England; but neither climate nor education promote it to the same extent as in America. From the earliest period of his life a young American is accustomed to rely upon himself as the principal artificer of his fortune. Whatever he learns or studies is with a view to future application, and the moment he leaves school he immerses into active life. His reputation, from the time he is able to think, is the object of his most anxious care, as it must affect his future standing in society, and increase the sphere of his usefulness.

AMERICAN LOVE OF OCCUPATION.

There is probably no people on earth with whom business constitutes pleasure, and industry, amusement, in an equal degree with the inhabitants of the United States of America. Active occupation is not only the principal source of their happiness, and the foundation of their national greatness, but they are absolutely wretched without it, and instead of the "douce far niente," know but the horrors of idleness. Business is the very soul of an American; he pursues it, not as a means of procuring for himself and his family the necessary comforts of life, but as the fountain of all human felicity. From the earliest hour in the morning until late at night, the streets are thronged by men of all trades and professions, each following his vocation like a *perpetuum mobile*, as if he never dreamed of a cessation from labor, or the possibility of becoming fatigued. Neither is this hurry of business confined to the large cities—it communicates itself to every village and hamlet, and extends to and penetrates the western forests. It is as if all America were but one gigantic workshop, over the entrance of which there is the blazing inscription, "*No admittance here except on business.*"

"MEADOW LAND," sold last week in Northampton, according to the Courier, at prices almost unexampled in that town. Four acres in Old Rainbow, which is overflowed by the Connecticut river freshets, leaving a luxurious vegetable deposit, sold for \$193 per acre. One acre sold at \$169. Three acres at \$161 per acre. Seven at \$153 each. Three and a quarter acres in Venture's fields, at \$136 per acre. Four and a half acres on middle Meadow Hill, at \$117 per acre. Two and a half acres, at \$125 for each acre.

CARE OF POULTRY.—The agriculturalist, Arthur Young, says "the poultry house should contain an apartment for the general stock to roost in, another for setting, a third for fattening, and a fourth for food. If the scale is larger, there should be a fifth for plucking and keeping feathers. If a woman is kept purposely to attend them, she would have her cottage contiguous, that the smoke of her chimney may play upon the roosting and setting rooms."

APPLE PORK.—*Frioul Holmes*.—I here give an account of a small pole porker of 1836. He was fifteen months old; of the Newbury white and Bedford breed; weighed 312 lbs. The leaves weighed 22 1-2 pounds; the *Roundabout* weighed 12 1-2 pounds; head 21 1-4 lbs.; bone of the head 3 1-4 lbs.; feet and legs 8 3-4 lbs. I have heretofore given my method of fattening.

Said pig was weaned upon apples, and kept upon a very small quantity of grass, with two quarts of raw potatoes per day through the summer. I have no doubt that we can make our hogs as large and as fat upon apples as any thing else, only it requires longer time than it would to fatten them upon corn. We cannot spare the corn, especially during the present season, therefore we use that which will yield the greatest profit. I have been thus particular in the weight of the hog, in order to ascertain the comparative weight of offal, and I know of no other way to come at the facts, except by weight and measure. I also wish that other farmers would communicate the results of their experiments in the Farmer, that the public may know what is the most economical method to pursue, for I think we are rather deficient in actual experiments, although we have plenty of theories.

PAUL WINGATE.

Hallowell, 3d month, 18th.

N. B. Perhaps it would be well to just mention that the pork was of uniform thickness, generally about 3 inches; in the very thickest parts it was four inches.—*Maine Far.*

EFFECT OF CARPETS.—A German traveller complains of the universal custom of covering floors with carpets in England. He thinks they occasion diseases of the lungs. "Observe," says he, "a beam of light which falls into a carpeted room, and you see the whole atmosphere loaded with numberless minute hairs, which retain all their own characteristics when inhaled, and must therefore act as foreign bodies. The English, eager admirers of cleanliness though they be, constantly breathe this air, rendered impure by these millions of little shreds mechanically suspended in it! It is almost impossible that this should remain without injurious consequences, more particularly where there exists a morbid tendency in the air passages."

MISTAKE CORRECTED.—The Dedham Patriot of the 6th inst., contains a quotation from Fessenden's Silk Manual, which is attributed to the Editor. But the Editor's notice is a distinct article, immediately following the "*Publisher's Notice*," from which the Patriot selected a specimen of our supposed address on bidding adieu to the Manual. The passage quoted, was written by Mr CHARLES BOSSON, a young gentleman, who is interested in the concerns of the office of the N. E. Farmer, and has on other occasions, proved an able coadjutor to the *Editor of the N. E. Farmer*.

CHINESE CARVING.—In carving wood and ivory and other substances, the Chinese have no rivals. We cannot approach them in their ivory work; baskets, fans and other articles; no European artist, we believe, has ever attempted to cut out from one solid ball of ivory, seven or eight interior ones, each separate from the rest, and as beautifully carved as the exterior one. These are all cut by the means of the several circular holes that are, in the first instance, bored through the solid ball.—*Quart. Review*.

MARL.—It would be well if every cultivator was aware of the important fact, that whoever finds marl, finds a mine of great value. It is one of the best and most general manures in nature; proper for all soils and all crops. Marl is usually found under moss or peat, in low, sunken lands, and especially nigh the sea or large rivers. It has been sometimes discovered by ant hills, as those insects bring up small pieces of shells from their holes. It may be known by the application of a mineral acid, and even good vinegar will cause an effervescence.

“To find the composition of a marl, pour a few ounces of diluted muriatic acid into a Florence flask; place them in a scale and let them be balanced: then reduce a few ounces of this dry marl to powder; and let this powder be carefully weighed, and gradually thrown into the flask, until after repeated additions, no farther effervescence is perceived. Let the remainder of the powdered marl be weighed, by which the quantity projected will be known. Let the balance then be restored. The difference of weight between the quantity projected and that requisite to restore the balance, will show the weight of air lost during the effervescence. [That air proceeds from calcareous earth alone, which contains fortyfour per cent. of this carbonic acid air. Suppose five hundred grains of marl lose fortyfour grains by the escape of air, then that marl contained one hundred grains, or one fifth part of the whole weight of lime stone.—T. C.] If the loss amount to twenty or twentyfive per cent. of the quantity of marl projected, the marl essayed is calcareous, or marl rich in calcareous earth. Clayey marls, or those in which the argillaceous ingredient prevails, lose only eight or ten per cent. of their weight by this treatment, and sandy marls about the same proportion. The presence of much argillaceous earth may be judged by drying the marl, after being washed with spirit of salt, when it will harden and form a brick.”—*Domestic Encyclopedia*.

WORKING OXEN.—We are told that laboring cattle will perform their spring work with more vigor and less apparent fatigue, if they are fed two or three times a day with a few ears of Indian corn. Some, however, prefer giving them small quantities of raw potatoes, which are said to be more cooling than corn, and to answer the purpose of physic as well as that of food. Perhaps it may be well to change their diet occasionally, from the roots to the grain; and these, with regular meals of good English hay, will, in ordinary cases, be sure to keep them in good working order.

MUSTARD SEED.—The common mustard seed, which grows with very little cultivation, and is easily gathered and cleaned by those farmers, who have floors for threshing wheat or flax seed,—is worth money. Mr Cobbett makes the following remarks on this article:—“Why buy mustard, when you can grow it in your garden? The stuff you buy is half drugs, and injurious to health. A yard square of ground, sown with common mustard, the crop of which you would grind for use, in a little mustard mill as you wanted it, would save you some money, and probably save your life. Your mustard should look brown instead of yellow; and as to the taste, the real mustard has certainly a much better than that of the drugs and flour, which go under the name

of mustard. Let every one try it, and I am sure he will never use the drugs again. The drugs, if you take them freely, leaves a burning at the pit of your stomach, which the real mustard does not.”

PENNSYLVANIA HORTICULTURAL SOCIETY—We have received a list, issued by the Horticultural Society established in Philadelphia, offering premiums for culinary vegetables, fruit and flowers, for 1837, to the amount of about *three hundred and fifty dollars*. “The object of the Society, in offering these premiums, is simply to excite a spirit of emulation among cultivators, to improve the varieties of fruits and vegetables, and disseminate a knowledge of the art of gardening.” And with such munificence and zeal on the part of the Society, they cannot fail to realize that object. Great good will be accomplished by these premiums. “The spirit of emulation among cultivators,” is a revolutionizing spirit, and radical in its effects. It will make the garden of Pennsylvania beautiful beyond comparison, and fills her barren places with vernal beauty.

“In quick succession

Various crops will crown the garden's fields.”

Such will be the fruits of a spirit of emulation. Agricultural and Horticultural pursuits, fostered by such encouragement, and aided by knowledge and scientific industry. Where is the Massachusetts Society, with her liberal list of premiums? Let not Pennsylvania outstrip her in this good work.

In addition to the above, a premium of Five Hundred Dollars is offered in the following terms:

BLIGHT IN PEAR TREES.

The Pennsylvania Horticultural Society, anxious to promote the discovery of a preventive for the disease usually termed *blight* in Pear Trees, offers a premium of FIVE HUNDRED DOLLARS, to be paid the person who shall discover and make public, an effectual means of preventing its attack. The premium not to be awarded until after the expiration of three years from the publication of the preventive, nor until the Society shall be fully satisfied of its efficacy. Communications on the subject may be addressed per mail to DAVID LANDRETH, Cor. Sec. Philadelphia.

BOSTON PIGGERY.—About six miles from the city, in West Cambridge, is the Boston Piggery. At least 700 hogs are here constantly kept in pork condition, *entirely* on the offal from the dwelling houses in Boston, every one of which is visited in turn by the city carts. The offal increases, and the contractor calculates that it will be sufficient hereafter to fatten 1000 hogs.—He now receives four cart loads a day, and pays the city \$3,500 a year, or about \$2.75 a load. He receives \$3 a day for what the hogs leave. The city Treasury loses \$1000 a year by the operation, and it is said the man makes three times that sum. The pig pen is an enclosure of fifteen acres, with places of shelter from the storm. As the hogs attain their size, they are slaughtered on the spot—the fat barrelled up, and the lean sold in the city. According to the rule in the country, the contractor should furnish each family in the city, once a year with a spare-rib, for the food furnished the piggery.—*Springfield Repub.*

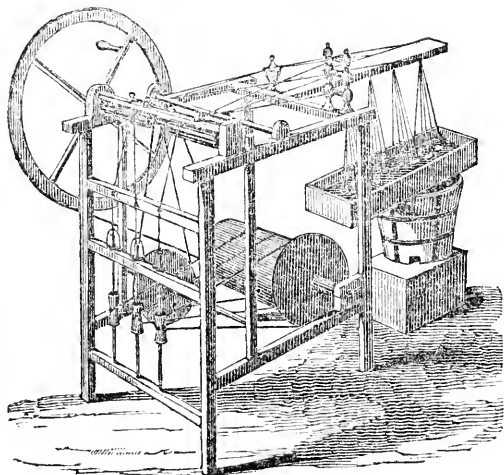
LICE ON CATTLE.

MR FESSENDEN.—*Dear Sir*:—A Subscriber to your paper wishes to know the most effectual remedy for killing lice on cattle, and has been told that Ashes, Snuff, Tobacco, sassafras posts, &c. will effect it. From several years experience, I know that a small quantity of *argyrum* (mercurial ointment) rubbed in round their ears and horns, will effectually eradicate them.—It should be applied near their horns, that they may not injure themselves by licking it, and it will as effectually do the business, as if their whole bodies were bathed in it. It may be purchased at any of the Apothecaries, or easily manufactured, 7 pounds of hog's lard, to 1 pound of quicksilver—or in that proportion—mix the quicksilver with a small quantity of soft turpentine, in a mortar until blended, then add the lard; when applied to stock, reduce it by adding equal quantities of lard; a thimble full is enough for four cattle.

But, Sir, it is an old saying, and somewhat true, that an ounce of prevention is worth a pound of cure; and in order to throw the ounce into the right scale, I would suggest to my brother farmers, if they keep their stock well, give them plenty of good fodder; water and card them, and keep them in a warm barn, in my opinion they will seldom have lousy cattle. I do not believe that there is any profit in keeping a half-starved stock of cattle, either for the yoke or the dairy. I know of some very worthy and pious men in other matters, that are in the habit of selling all their English hay, and keeping their stock on hog meadow hay, and if it keeps the breath of life in them through our long northern winters, (as it sometimes does) it would be a difficult matter to separate the hide from the frame in case of accidental death in the spring. *There is no religion in that.*

Yours, C.

Old Colony, March 24, 1837.



BROOK'S SILK SPINNER AND TWISTER.—We are happy to be informed from various parts of the country, that the above named apparatus is well received, highly appreciated, and recommended by persons whose opinions are decisive as regards the merits of the invention. In the current volume of the *New England Farmer*, pages 35 and 154, we have given testimonials of the high estimation in which the machine is held in Ohio, and in Maine, and we will now show that its reception in Albany has been no less favorable.

At a meeting of a State Agricultural Convention, convened in the Capitol on the 2d of February, on motion of Mr Buel of Albany, a committee was appointed, con-

sisting of Judge Spencer, and J. B. Nott of Albany, and A. Walsh of Rensselaer, to examine and report on the Silk Spinner and Twister of Mr Brooks, exhibited in operation at the Capitol.

Mr A. Walsh, from the committee appointed to examine Brooks' Silk Spinner and Twister, reported:

That in the absence of Mr Nott, Messrs Spencer and Walsh have seen the machine in operation, and critically examined it, and that they are of opinion that it is not only a most ingenious invention, but in their judgment, cannot fail of becoming eminently useful. It seems to solve the problem which has induced great doubt, whether the culture of Silk in the United States, would be profitably prosecuted, from the difficulty of good reeling of Silk from cocoons without very considerable manual instruction. The committee are satisfied that an ingenious female can almost immediately learn to reel on Mr Brooks' machines, in a perfect manner.

As the machine has been seen by the convention, the committee forbear to describe it particularly; but they recommend to the convention a donation to Mr Brooks, as a small reward for the immense benefits this invention will confer on the silk culturists of this country.—See current volume of the *Cultivator*, p. 22, 23.

The following additional certificates, &c., came to hand after the above was prepared.—

TO THE PUBLIC.

This may certify, that last 12th month, [December,] I went to Adam Brooks, in Scituate, Mass., to learn to spin Silk on his machine. I expected before I saw it, that it was something very complicated, and that it would take me a long time to learn to spin. The first morning I ever saw the machine, I commence spinning, and succeeded beyond my expectation. I was surprised that Sewing Silk could be manufactured with so little trouble. I immediately purchased one of Brooks machines, and have used it to my satisfaction. I have, with the assistance of a boy eleven years old, spun 150 skeins of Sewing Silk in eight hours, from the cocoons, ready for cleansing and coloring—in all have spun nine pounds ready for the market. And in my using the machine, I have met with no difficulty, neither has it got out of repair. Brook's machine in my estimation is far preferable to any other now in use; and I would highly recommend it to all those engaged in the business, and are about purchasing.

RACHEL W. HEALY.

North Marshfield, 3d month 20, 1837.

I the subscriber, do certify that I have one of Adam Brook's Silk Spinning machines in operation, and can truly say, it is equal in all respects, to what Mr Brooks represents it to be.

EDWARD PHELPS.

Marlboro', Nov. 16, 1836.

Brooks' Silk Spinner and Twister, deserves a further notice from our hands, because we think it ranks among the most useful improvements of the day, and is calculated greatly to facilitate our progress in the silk business. Let it be remembered, that very little instruction is required to qualify a woman to use it; that it is equally adapted to the fabrication of sewing silk, twist, or to a thread for any required fabric, and that it produces all these, as far as we can judge, in a perfect manner. Now the question is, what will it earn, in a silk family, or a silk neighborhood? For now-a-days, *profit* is the great desideratum. In this matter, we shall speak on the authority of the patentee, a very unassuming, intelligent, and, we believe, honest member of the society of Friends, or Quakers. He says it is a moderate day's work to spin and twist half a bushel of cocoons into sewing silk, and that the fair average product of these cocoons would be 175 skeins of sewing

FARMER'S WORK FOR APRIL.

silk, worth now, at wholesale price, five cents the skein. The highest price of cocoons is \$4 per bushel. Assuming these data, and basing our calculation upon five bushels of cocoons, which a family of girls may easily produce every year, let us see what would be the gain which would accrue to this family in five years, from the use of this machine.

The 25 bushels of cocoons would produce	8,750 skeins	
silk, worth five cents at wholesale,	-	\$437 50
From which deduct the wages of a woman,		
50 days at 50 cents,	-	\$25 00
Add cost of machine,	-	35 00
And it makes a total of	-	60 00

And leaves a profit of - - - - - \$377 50

The highest price at which cocoons sell is \$4,
which would be, for the 25 bushels, - - - 100 00

\$277 50

Which shows a profit, in buying and using this machine, over selling the cocoons, in the small quantity of 25 bushels, of \$277 50. This would require the labor of a woman only ten days in a year, or 50 days in the five years. The remainder of the time, to any extent required, might be as profitably applied, in working up the cocoons of the neighborhood, of the town, or of the county; and the value of the machine would be but little impaired by these earnings! Every silk district should have one of Brooks's machines.—*Albany Cult.*

GIN-SENG AND GARLICK.—The gin-seng is a native of Tartary, Corea, and also thrives in Canada, Virginia and Pennsylvania, in shaded and damp situations, as it soon perishes under the solar rays. The Chinese attach considerable value to it. Thunberg informs us that it sometimes fetches forty pounds a pound; and Osbeck states that in his time, it was worth twentyfour times its weight in silver. This enormous price frequently induced smugglers to bring it into the Chinese territory; but the severest laws were enacted to punish this fraudulent traffic. The Tartars alone possess the privilege of cultivating and collecting it; and the districts that produce this precious plant are surrounded with palisade, and strictly guarded. In 1707, the Emperor of China, to increase his revenue, sent a body of 10,000 troops to collect gin-seng. According to the Chinese physicians, this root possesses the faculty of enervating exhausted constitutions; giving fresh vigor; raising the drooping moral and physical faculties; and restoring to health and enbonpoint the victim of debauchery. It is also said, that a bite of the root chewed by a man running a race, will prevent his competitor from getting the start of him.

It is somewhat singular that the same property is attributed to garlic; and the Hungarian jockeys frequently tie a clove of it to their racer's bits, when the horses that run against them, fall back the moment they breathe the offensive odor. It has been proved that no horse will eat in a manger if the mouth of any other steed in the stable has been rubbed with the juice of this plant. I had occasion to witness this fact. A horse of mine was in the same stall with one belonging to a brother officer; mine fell away and refused his food, while his companion throve uncommonly well. I at last discovered that a German groom who had charge of the prosperous animal, had recourse to this vile stratagem. It is also supposed that men who eat garlic, knock up on a march the soldiers who have not made use of it.—Hence, in the old regulations of the French armies, there existed an order to prohibit the use of garlic when troops were on a march.—*Milligen's Curiosities of Med. Experience.*

SPRING WHEAT.—Great care should be taken with regard to the seed from which we attempt to obtain our crops, and particularly of wheat. "One error here may mar our whole system, and render our skill productive of as much evil as good. On poor and worn out land, the evil of sowing impure seed with grain or grass seed would be great; but when the ground is in high order, the crop is more injured; the noxious plants take firmer hold, and are more difficult to be eradicated. It would be better for a farmer to pick over his seed wheat by single handfuls, than to sow cockle, darnel, tares and other vegetable nuisances."

A correspondent gives the following directions for preparing seed wheat: "The only successful course is to prepare the seed about ten days before sowing time. This is done by selecting clean and plump seed, passing it through water in a tub about half a bushel at a time, and washing it and skimming off the matter that floats; then empty it into a basket to drain; then lay it on a clean floor, and rake in two quarts of slacked lime and one quart of plaster to the bushel, and if too dry, sprinkle on water, and continue to stir it till all is covered with the lime and plaster. In this way you may proceed until you have prepared your whole seed. Let it remain in a heap one day, then spread it and move it daily, until it becomes perfectly dry; it is then fit to sow, and you may then sow it if the land should happen to be quite wet."

The same writer observes that "the quantity of wheat to an acre, should be a bushel and twenty quarts. In the process of sowing, you may not be able to apportion your seed exactly to the acre; therefore, when you have sowed and ploughed in the quantity proposed for the acre, you may gather all that remains, with the lime and plaster, and sow it on the whole piece of land, passing across the furrows. This will make it even, and cause a very equal distribution of the seed, which may then be harrowed. After the wheat has come up three or four inches above ground, sow one bushel of plaster to the acre, or horse ashes, equivalent, as you please, or leached ashes, increasing the quantity."

A writer in the *Maine Farmer* of the 28th ult., with the signature B. S., gives the following statement on this subject:

"A gentleman, who for several years has been a successful cultivator of wheat, has pursued the following method. He ploughs the land he intends to be sown with wheat, as late in the fall as possible, with the furrows running north and south; so that every part of the surface shall be equally exposed to the sun's rays. In the spring, as soon as the frost is out sufficiently to level the ground, he puts on his team with a stout harrow, and sows his wheat without regard to the earliness of the season. Here let me remark, that I believe spring frosts seldom, if ever, injure grain in the least; but an early frost in the fall is very liable to, especially if it come while the grain is in the milk.

"I suppose the success of the gentleman alluded to above, to depend principally on his practice of late ploughing and early sowing." * * *

"The eggs or larvæ of insects are early deposited in the earth, in such cells and with such supplies of nutriment for their *infantile* state as their natures require.—The parent insect does not anticipate, and of course makes no provision for their disturbance or removal.—Late ploughing effectually dislodges a great portion of them from their winter quarters, and exposes them to the sudden changes of weather—the alternate wetting and drying, freezing and thawing, which we inevitably have late in the fall and early in the spring. This exposure is more than they can endure, and the natural consequence is, that they perish in myriads."

PARSNIPS—A FIELD CROP.—The labor and mode of cultivating the parsnip are about the same as those of the carrot. The parsnip produces a larger crop, its average product being rated at 24 tons the acre, and that of the carrot at 12 tons. The parsnip also contains a far greater proportion of saccharine matter than does the carrot, is grateful to the palate of farm stock, and is greatly conducive to their fattening. It possesses another advantage over the carrot, in its hardness—it may be left in the ground till spring, and not be injured by the frost. In the Island of Jersey, it forms a regular part of the field system. The roots are fed in a raw state to the hogs and horned cattle; the flesh of the former they are said to render delicately white, and the benefit derived from the latter, is in the opinion of many growers, nearly equal to that obtained from oil cake, in point of the weight of flesh, and so superior in flavor that in the island it always commands the highest price. Cows fed upon them during the winter months are said to produce butter of a color and flavor equal to that of the most luxuriant grasses. In Jersey 25 pounds are given daily to the cows with hay, and the cream is more abundant than from an equal quantity of milk, and the cows differently fed—seven quarts producing as much as seventeen ounces of butter.—*Yankee Far.*

DUNG.—It is common, at this season, to haul to the fields, the dung destined for the spring crops. Fermentation and waste often ensue before it is buried in the soil. To avoid this loss—we allude to unfermented dung—the dung should be laid in compact piles, of not exceeding eight loads, where most convenient to be distributed, and as soon as the ground becomes thawed, covered with six or eight inches of earth, and the surface smoothed with the spade. The manure will seldom ferment before the ground thaws. The earthy covering imbibes the gaseous matters, and protects the dung from the wasting influence of the weather. When crops are dunged in the hill or furrow, with long manure, the dung sometimes fails to rot, for want of moisture to bring on fermentation, and is consequently of no benefit to the crop. When the dung is spread broadcast, and ploughed under, this difficulty never occurs, and the dung becomes better incorporated with the soil.—*Cultivator.*

IMPORTANT TO FARMERS—An esteemed correspondent has given us some information relative to the planting of corn, which we think must be highly useful to farmers, and would perhaps prove a benefit to the corn market generally, were it adopted. Hundreds of thousands of bushels are annually destroyed by birds, (particularly the black-bird and crow) which might be preserved by a very simple method. The birds will pull it up the moment it appears above ground, and eat the seed. In order to prevent its destruction, the farmer should first soak the seed well in soft water, until the chit is just on the eve of bursting through, then turn it into a vessel of tar, made soft by moderate warming, and stir it thoroughly until every grain is well coated, when it may be separated for planting. Work in some pounded plaster, when planting, and this seed the birds will not disturb; it will come up rank and fine, and pay well for the trouble. If the corn is not soaked well before coating it with tar, it will not be likely to come up, as the tar will naturally prevent the necessary moisture from penetrating through it. This has been tried by farmers who never could get a good crop of corn in any other way, and found to succeed admirably.—*Sun.*

HOW TO REMOVE A POTATO FROM THE THROAT OF A CHOKING COW.—Fasten the head of the ani-

mal, standing, firmly to a post. Let a strong man with his hand, completely stop the windpipe by his grasp just above the potato, and keep a firm hold for a minute or two, until the animal gives an involuntary spring forward. Should the first experiment not succeed, let more be made. Reason—the wind obstructed in its passage through the wind-pipe, expands or largely opens the other pipe below the potato, and when the animal makes a violent effort, the potato goes downwards. This is a fact worth knowing to farmers, and upon inquiry I find that a few do know it. I had a fattening cow thus choking with a potato. After trying in vain several methods commonly known, I sent for a butcher to kill the cow at once. He came, but instead of killing, in a few moments relieved the creature in the manner I have described; and informed me that in the same way he had saved a number of cattle before. A FARMER.
Yankee Far.]

[From the Yankee Farmer.]

TREES.

The time is fast approaching, when the people of this country will devote more attention to the culture and transplanting trees; upon few subjects have they now less information. In transplanting fruit and other trees, the common practice is to violently pry up or pull up the young trees, breaking off or cutting off the main roots, and most if not all the small fibres extending from the ends of the roots, the pruning-knife is so thoroughly applied to the branches, as often to leave the main stock almost entirely denuded. The stock with a few remaining roots, is then often set in chip, door-yard or barn-yard manure, so that small cavities remain around the roots. By the exertions of nature, a young tree, after a year or two, may push forth new roots and branches, and after being stunted in early growth, sometimes live. That all this process is unnatural and wrong will appear evident to those who will reflect upon the subject. Like others equally ignorant, we formerly adopted the same erroneous practice.—But to show its errors, let us attend to certain facts. All the nutriment which the tree derives from the soil, is, in the first instance, received through the medium of the fibres, many being so small as not to be perceptible to the eye, and thence conveyed to the main roots; thence to the stock, thence into the leaves of the tree, where the sap is elaborated, and finally converted into wood, except that part, which, in fruit-bearing trees, is converted into the fruit. If then, the fibres are all destroyed, how can the tree grow?—We answer, it never can, unless a new set of fibres shoot forth from the roots.

The circulation of the sap is as necessary to the tree, as the circulation of the blood is to the hu-

man body. And the leaves have an office somewhat similar to that of the human lungs. The amputation of the limbs, therefore, stops the circulation of the sap, and its preparation by a peculiar process, which we cannot explain without resorting to chemical terms. A tree derives an essential part of its nutriment from the atmosphere. This is susceptible of the clearest demonstration.

For the sake of brevity, we will not justify these positions by offering further reasons. But we will lay down the following positions as correct.

In transplanting young trees, in the Fall or Spring, all the roots with their fibres, so far as practicable, should be taken up with great care, and set in a large deep space in rich earth or mould, and fully pressed down compact or hard round the roots. No manure should be applied, except on or near the surface, as it tends to make cavities and to prevent the natural nutriment entering the fibres, or often to render the roots too dry. The tree should be placed in a firm position, so as not to be turned one side by the winds. The tap-root, which has no other use in penetrating downwards into dead earth, serves as a stake or main support, and should not be cut off. Should it be cut off, a new tap-root for support, will generally grow out in a course of years.

In respect to fruit trees, it may be judicious to prune in transplanting, so far as to give them a good form or symmetrical proportion, and no further, except where by carelessness, much of the root has been broken off. In the latter case, there should be some proportion between the roots and the branches, always leaving on enough of the latter to support the circulation of the sap. Young trees much mutilated at top or bottom, should they survive at all, remain several years before they can have a rapid growth.

In England, transplanting trees has been reduced to a science. There full grown trees are now transplanted with ease and little danger of their loss, and thereby small groves and forests suddenly formed, and their pleasure grounds ornamented. The machine used in removing is of as simple construction as a pair of common cart wheels, with a long tongue. About three years previous to removing the tree, a deep trench is cut round it, in order to cut off the ends of the main roots—a cart load of rich mould is then placed within the circle around the stock on the surface—new sets of roots and fibres shoot forth upwards, receiving nutriment from the mould thus deposited.

The new formed fibres and roots, with nearly all the top or branches, are finally removed to any convenient distance, and it is said that not one out of fifty die.

If the fact is not generally known, it ought to be, that a tree transplanted from a thick forest to cold open exposure, is very liable to die—often dies. The reason is, that the bark as well as the interior wood is more tender than that of a tree taken from a pasture or open exposure.

Thus the majestic oak, in open spaces, which bids defiance to the rude blasts of the winds, is of far superior value for ship-building, than the forest-oak. AGRICOLA.

BOTS IN HORSES.—*Mr Editor*:—I have read various theories upon this subject. I will suggest quite a novel mode of destroying them—by *hot water*. No one will doubt that its application would cause immediate death to the bots, but some would suppose that it would kill the horse also. I confess that such would be my fears.—Therefore, due regard should be had to the quantity as well as temperature of the water. My present object is to mention the fact, that Mr William Rich, of Maidstone, Vermont, is in the practice of destroying Bots, by pouring hot water into the horse's stomach. I learned this fact from him, and was also present when he thus saved a fine young horse at Windsor, Vt. Would it not be well to request particular information from him, in respect to the process and degree of temperature, which would not injure the horse?

Yankee Far.]

ENQUIRY.

IMPROVED CHURN DASHER.—An improvement in the dasher of the common Churn has been made, by which that kind of churn is considered by many to be, for common purposes, equal if not superior to any in use.

The dasher turns on the handle by being fixed to it by a pivot. The dasher is merely two cross pieces, say three inches square, put together by being let into each other, which then form four wings. These are cut beveling on each side, at an angle of fortyfive degrees, so that they stand diagonally, the whole being very similar to the wings of the little windmills (so called) which are set up on poles to be turned by the wind.

As this dasher goes down in the milk, it turns one way on its pivot in the lower end of the handle, and as it comes up it turns the other way;—and this produces an agitation of the milk better calculated for producing the butter than any method ever yet known. It is so efficacious in its operation, that the churning must be performed moderately, or the butter will come too soon, and be swelled, as it is technically called by some.—*It.*

MORUS MULTICAULIS.—By recent advices from a gentleman now in France, who contemplated a purchase of mulberry trees for his own plantation, under date of December 14, 1836, and February 14, 1837, states that trees and seed are very

scarce and dear—that before his arrival, all for sale had been secured for the American market—that in fact there are no *Morus Multicaulis* for sale, and that the season was so unpropitious, that the seed did not come to maturity. Another advice states that even white Mulberry seed is worth 60 francs the pound in Paris. Those who have mulberry trees on hand should make the most of them. There is no prospect that trees can be imported and sold another year at former prices.

SILK CULTURE.

A writer on the subject of the Silk Culture, very properly remarks that “we feel certain that if the subject is properly estimated by agriculturists, that the silk culture is calculated to make a great moral and physical change over the whole face of our country, and to banish penury from the door of every farmer in this land who has enterprise and industry enough to enter into it.”—*Northamp. Courier*.

THE TURNIP FLY.—A method of preventing the ravages of the turnip fly has been adopted in Hampstead :

The practice is founded upon the fact that the fly emits its eggs in the autumn, and that they are not hatched till the next spring, when the warmth and the fruitful state of the soil by repeated ploughings and harrowings, admit of the generating effects of the sun's rays. It is at this period the turnip is generally sown; the plant therefore springs up at the time the fly is hatched, and a supply of food being thereby afforded, it is not surprising that they should multiply and thrive. If instead of sowing immediately, the soil is bro't into as fine a state as possible and the sowing delayed for ten days, although the fly would be hatched, it would die for want of its natural food. The existence of a fly in the field may be ascertained by placing cabbage leaves at night, and examining them in the morning.—*Baltimore Farmer*.

(From the American Silk Grower.)

EXPERIMENT WITH POTATOES.

MR COOKE:—In No. 19 of your paper, I find the account of an experiment by Mr Hazen, which together with that made by Mr Hatch of Alstead, and published by you some time since, would almost seem sufficient to satisfy the reader without my communication, but as I had, previous to seeing Mr Hazen's publication, prepared a history of an experiment I had made with considerable care, and with more mathematical precision than either of those, I send it for your consideration with liberty to publish it, if you see fit, as different results may arise from different modes of management, on different soils, &c., I consider that a goodly number of experiments on the same subject, to be not amiss.

About the 29th. of May 1836, when planting my potatoes, I left five rows for experiment, on each side of which I planted the row with one good fair sized whole potato to each hill, I then planted the five rows in the following manner:—The 1st row with three to four small ones laid scattering to each hill, making about the same amount of seed, by weight, of the wholes. I then took the seed-ends, taking as near half of the potato as I could judge, from a good sized potato, like those generally planted in the field; and to each hill laid two of these pieces six or eight inches apart; next I selected some quite large, and took enough of the seed-end to be of equal weight, each of one good fair sized potato, being generally about half of the great potato, and to each hill put one of these seed-ends; the 4th row I cut into quarters and planted scattering about eight inches apart, all four of the quarters to each hill; the 5th row was planted with two good fair sized wholes to each hill, (double the seed of the rest) then next to them, as you will understand, came my wholes, planted one to the hill, as I before stated.

Now for the result. To make the story plain, I took as much ground of each sort as produced 100 pounds from those planted with the wholes of good fair size.

1st row, planted with small ones, 89 lbs. but only about two thirds as large as an average of the others.

2d row, planted two seed-ends to the hill, 87 2-3d lbs., and the size about like the produce of the wholes.

3d row, planted with one seed-end of a large potato to the hill, ninetytwo and one half pounds, the produce of these being fair and handsome.

4th row, planted with 4 quarters to the hill, 90 lbs. of a quality rather below medium.

5th row, planted with two good potatoes to the hill 105 pounds, having rather more small ones than those planted with single wholes, and altho' they produced the greatest crop by 5 per cent. yet it is estimated this surplus was only about half enough to compensate for the extra amount of seed planted; therefore on the whole, we find the greatest profit in planting one good sized, fair whole potato to each hill, provided the distance of hills be such as I usually make, that is, nearly 4 feet by 2 1-2. But if you are intent on making the hills further apart, then perhaps it may do to put two good ones to the hill, but in no ordinary case, do I approve of cutting. Repeated experiments in former years have fully convinced me on this point; even cutting into halves and planting both pieces, is not quite as good as to plant whole, for in cutting we mutilate the germ of the coming plant with which nature has furnished each potato, and being thus lacerated it is rendered incapable of throwing up so vigorous and per-

fect a plant, and hence deterioration must be the consequence.

NATHAN WILD.

Chesterfield, March 20, 1837.

IMPROVEMENT IN SAP BOILING.

Mr TUCKER:—If I should tell those of your readers who manufacture maple sugar how they can save one quarter of their time, and a quantity of sugar from burning up, would they care in what kind of style that information was communicated to them? Well, then, tell those who boil in cauldrons or potash kettles, to hang them on a balance—not stationary as my own grandfather used to do, and myself after him, by which means I burned up more or less sugar every year, by leaving too much fire under the kettles, when I left them at night.

Now I lay a stiff pole across two stumps or in two stiff crotches stuck in the ground. I then take another straight pole, 25 or 30 feet long, lay it across the first pole, and hang my potash kettle on the butt end of it, about four feet from the cross bar. I then put a weight on the opposite end from the kettle, just so that the kettle will balance with four buckets of sap in it. Then after boiling sap all day in my kettles, I can leave as much fire under them as I please without fear of burning up my sugar. In the morning, I find my kettles swung up four feet from the fire, with three or four buckets full of syrup in each one. I then take that out and put it in a tub to settle until I want to boil it into sugar. On the above plan twentyfive buckets of sap will boil away from one kettle while I am asleep.

—*B.*]

MUSICIAN.

(From the N. H. Patriot.)

Extract from an *Address*, read before the Merrimack County Agricultural Society, at their annual Cattle Show and Fair, holden at Concord, N. H., Oct. 1836, by CYRUS BARRON.

INDIAN CORN. RIDGING.

There is a mode of culture in practice in some parts of the State, which, in my opinion, is far preferable to that generally practiced in this country. Preferable, because more than one half of the labor of ploughing and hoeing is saved, and at the same time a better crop is obtained. The mode is this: When a piece of mowing or pasture land is to be broken up in the spring for corn, the first thing is to spread the manure evenly over the whole surface. The ground is next thrown into *ridges*, by means of a plough with double mould-boards and shares,—so that a furrow is turned up on each side of the plough as it passes along. Instead of going round, or “marking off a land,” as it is termed, the plough returns on the same side, within 20 or 24 inches of the first fur-

row. You then have a ridge—the edges of the two furrows coming nearly in contact, the grass is covered up, and all the manure which was spread over the space occupied, is thrown within the ridge. A man follows with his hoe to mend up the turf where it breaks and falls back, and to fill up the interstices between the edges of the turf with soil from the furrow.

As the ground only requires to be ploughed to the depth of about four or five inches, two yoke of oxen will easily plough two acres and a half in a day, and which, where the ground is tolerably smooth and free from stone, the man who follows will dress and render fit for planting in the same time—or, as is frequently practised, the corn is dropped and planted, at the same time the ridges are dressed; and which is no doubt the better way.

Here then is a vast saving of labor; for I believe that ploughing one acre, by the present mode, is a good day's work; and on the intervale lands in this town, the services of not less than 3 yoke of cattle are required. But this is not all—for the ground then has to be harrowed, cross-ploughed, and furrowed out for planting. So that the difference in labor, of preparing grass-land for a corn crop, is as three to one in favor of ridging.

But this is not the only advantage. The ground being ploughed at the very time of planting, after the grass had become green, the decomposition of the turf and manure, thrown together within the ridge, causes fermentation to take place, the genial warmth of which causes the corn rapidly to spring up, and come forward with a vigorous and healthy growth, and with the whole of the manure confined within range of its roots, subject neither to evaporation or to be washed away by rains, the corn usually comes to maturity some eight or ten days earlier, than when treated in a different manner.

This mode of ridging has long been practised in Sullivan County. More than twenty years ago, before I left the farm for the more arduous and severe labors of the workshop, I assisted in dressing these ridges. The improved plough was at that time unknown, and the ridges were then made by passing the common plough through both ways in the same furrow. It is the only mode practised in some of the country towns of that county now, whether the surface be rough or smooth, or the ground wet or dry, when a crop of corn is to be taken from grass land; and I am happy to say that the experiment has been tried here, during the present season, with the most satisfactory results.

At the suggestion of Paul Jacobs, Esq., who last year represented the town of Croydon in the Legislature, and who is one of the most extensive and best farmers in Sullivan County, Mr William Low of this town was induced to send for one of

the improved ploughs for ridging; and with which he ridged several acres on the intervale, which he planted with corn, and from which he has realized a tolerable crop, better than most of his neighbors—though not so good as the average of a good year. Mr Robert Eastman of this town prepared a few acres of his ground in the same manner, and with a like result. This plough may also be used to great advantage in the cultivation of potatoes, two acres and a half of which may be ploughed and planted in a day, with the assistance of two persons to drop the seed as the ground is ploughed, and which is covered by the ploughing and dressing the ridges.

After the crop has been taken from ground prepared in this manner, the plough is run through the ridges lengthwise, either in fall or spring, and the soil prepared for the succeeding crop.

If, then, as has been fully demonstrated, a saving of one half if not two thirds of the labor of breaking up grass land and preparing it for a corn crop, can be realized by this mode of culture, and at the same time a better crop produced, it is certainly worthy the attention of the farmers of this county, who I am satisfied, will give to the subject all the consideration which its importance demands.

(From the Farmer's Register.)
ON THE ABUSE

And proper treatment of Work horses.

I was much pleased with a communication signed W., from Charlotte, in the February No. of your useful and valuable journal, on the feeding of work-horses. In no other portion of the globe, where that invaluable animal, the horse, is domesticated, is he more esteemed, more lavishly fed, and yet at the same time, more cruelly and shamefully neglected, than in Virginia, east of the Blue Ridge, and I am always pleased to see any effort made to meliorate the condition of this faithful and steadfast friend of man. It has been frequently a matter of astonishment to me, that the Virginians, with their proverbial fondness for the horse, (to say nothing of his acknowledged and indispensable value) should always have been, and continue to be culpably ignorant or negligent in what I will call horse-husbandry. Nine men out of ten, pay no kind of regard either to his comfort or his nature. He is treated more as a machine made of wood or iron, than as a living being. In winter he is exposed in wretched hovels, to the "peltings of the pitiless storm," and in summer he is imprisoned in the same miserable goals, to inhale the noxious stench and *malaria*, arising from the putrescent excrement and filth of his stall. After a hard day's work, or ride, the unthinking (not to say unfeeling) owner (or brute) alights from the back of this faithful and jaded friend, and instead of going to his stall—in per-

son attending to his food—seeing that it is neither too much nor too little, and of the right sort, and causing his stiffened joints to be rubbed, and the perspiration and dust to be curried from his skin and a soft bed thrown down, upon which the wearied creature may repose and re-suscitate himself for the morrow's labor, as common gratitude and *interest* both would suggest, this submissive and uncomplaining servant is coldly consigned over to the tender mercies of the slave; and too frequently, after a day perhaps of unprecedented labor, spends a night of corresponding iniquitude and misery. No wonder then, that we so frequently see such woe-begone and miserable looking jades tottering along in our teams. No wonder that the horse is becoming short-lived, and as many farmers think unworthy of raising; and no wonder that that long-eared, stubborn, ill-contrived wretch, that thrives upon beating, the mule, is so fast succeeding and shoving out this noble animal. Your correspondent has well observed, "that the master's attention is half feed." Yes, sir, in this word *attention* is comprised, the whole wisdom of horse management; and this necessary attention needs no phrenological hump for its development; neither need a man "like a poet or a painter, be born with it,"—for it is so simple that any man, be he white or black, may learn it, or be made to learn it. Were I asked what is the best method for keeping horses in good order? without stopping even to glance at what kind of food they ate, I should promptly answer *attention*. This is the whole and only secret; for whilst some kinds of food are decidedly better and cheaper than others, yet with attention a healthy horse will thrive on *any* food that he will eat. In the first place, attend to your stable, make it a comfortable house, let it keep out the rain and ward off the winter winds. In summer when the weather is fair and hot, when you take out of harness at night, feed your horses in a lot adjoining the stable (leaving the stable door open in case of rain)—for it is too bad after a horse has labored hard all day, to cage him up in a narrow cell all night; turn him into a lot and let him wallow and walk about and enjoy the cool breezes. At least once a week (for the horse is a cleanly animal) clean out your stalls and throw the litter into your farm-pen. You will add greatly to your stock of year's manure, and infinitely to the health and comfort of your horse. As often as you clean out your stalls (or oftener) make your ostler throw an armful of straw or leaves into each. Water regularly. Bleed not infrequently. As often as you think of it, if it is once a day, throw a small quantity of salt into the trough of each horse; and finally, curry and rub in the morning, at noon, and at night; and whatever you may feed on, the *incis* and strength and ability of your horse will *ampl*ly compensate you for all trouble; and if a

blooded horse, will be worth two of the best mules that ever were captured in *Sante Fe*. But the trouble (this great enemy to the happiness of the horse) although it seems formidable at a distance, when you approach, it dissipates to nothing. Get into the habit *yourself* of attending to the comfort of your horse, and get your ostler or head ploughman into the habit, and he will soon take all the trouble off of your hands. Let your ostler find out that you are *determined* to have your horses attended to—that you can, at a glance, tell whether they have been rubbed, curried, &c. &c., as they should have been, and you will have no further trouble than to walk to your stable night and morning and look in. As soon as you *convince* him that this thing shall be done, he will do it; for one kind of work is the same thing to a slave as another—and he will do or not do this or any other work *well* as the master permits him.

Of the different kinds of food used for horses, my experience tells me, that what is generally in this section of the country called “chopping,” that is, cut-straw and meal of any kind mixed together, is decidedly the cheapest, and best general food. It is far preferable to corn and fodder in the usual way. With the horse, as with all other animals, an occasional change is of great service. Our neighbors over the Blue Ridge, whose horses are always fat, make their “chopping” of rye-straw and rye-meal; but we, on this side, who adopt this mode of feeding at all, do not much care what kind of straw or meal we use.—For the last three months, I have been feeding 6 horses on ‘ship stuff,’ and corn meal, (half and half) and cut *wheat* straw—occasionally alternating with cut *shucks*; and I find it, if not the best certainly as good, and cheaper than any other diet I have ever used. By this method, when they are not at work (when at work, I give them corn and fodder at 12 o’clock) my horses cost me a bushel of ship-stuff and a bushel of corn meal per month; the straw I count as nothing. My ship-stuff cost me two shillings per bushel. It is frequently bought at 25 cents. I have not used one pound of blade fodder, and calculate by the saving, to sell fodder to twice the amount I paid for the ship-stuff; and my horses are as fat, or fatter than I ever had them in the winter. After clover comes in, I use little or no fodder—but feed on green or half-cured clover, and but little else; for a horse will frequently leave untouched the corn in his trough, if you fill up his rack with enough green clover to keep him going all night. I cut the clover in the morning, and let it partially *will* in the field till night, on which I feed at night, and the ensuing day. Were it not so amazingly convenient to toss ten ears of corn and a bundle of fodder to a horse, I am sure I should never give a grain of corn in the natural state as long as

I live. It is a heating, indifferent food—and convenience and the dread of a very little trouble, I am convinced, are the causes which induce the great mass of farmers to persist in it—for whether we consult economy, or the welfare of the horse, we should certainly abandon it. I give my horses a quart of meal and ship-stuff a head, mixed up in half a bushel of cut-straw at a feed, in a square box, made for the purpose, holding fifteen bushels. I mix the corn-meal and ship-stuff together, and at each mixing I crumble up three or four bundles of lug tobacco and mix along with it. This answers two valuable purposes; it neutralizes that predisposition to costiveness, (and consequently colic) common to horses in the winter season, and which prevents “Cufflee” from robbing the troughs, which, whether it be a part and parcel of his very nature, or from a principle of *lex talionis*, (to wrong the master because he considers himself wronged,) he will be sure to do unless you by some means prevent him, even tho’ you were to give him a bushel of meal and a ham of bacon a day.

The horse is a noble, generous, ill-used animal. He ministers to man’s pleasures and wants. In peace or in war, for work or for fun, he is the same docile, subservient, willing, obedient friend,—and if, Mr Editor, these hasty lines and imperfect description of what I have found to be an economical and healthful diet, can be of any service, either to the “gallant steed,” or to the “galled jade,” he is welcome to the half hour I have devoted to it. * R. C.

THE FOOD OF MAN.—The Genesee Farmer gives this brief summary of the native countries of our most familiar plants:

The potato is a native of South America, and is still found wild in Chili, Peru, and Monte Video. In its native state, the root is small and bitter. The first mention of it by European writers is in 1588. It is now spread over the world.—Wheat and rye originated in Tartary and Siberia where they are still indigenous. The only country where the oat is found wild, is in Abyssinia, and thence may be considered a native. Maize or Indian corn is a native of Mexico, and was unknown in Europe until after the discoveries of Columbus. The bread fruit tree is a native of the South Sea islands, particularly Otaheite. Tea is found a native nowhere except in China and Japan, from which country the world is supplied. The cocoa nut is a native of most equinoctial countries, and is one of the most valuable trees, as food, clothing and shelter are afforded by it.—Coffee is a native of Arabia Felix, but is now spread into both the East and West Indies. The best coffee is brought from Mocha, in Arabia, whence about fourteen millions of pounds, are an-

nally exported. St Domingo furnishes from sixty to seventy millions of pounds yearly. All the varieties of the apple are derived from the crab apple which is found native in most parts of the world.

The peach is derived from Persia, where it still grows in a native state, small, bitter and with poisonous qualities. Tobacco is a native of Mexico and South America, and lately one species has been found in New Holland. Tobacco was first introduced into England from North Carolina in 1583, by Walter Raleigh. Asparagus was brought from Asia; cabbage and lettuce from Holland; horse-radish from China; rice from Ethiopia; beans from the East Indies; onions and garlic are natives of various places both Asia and Africa.—The sugar cane is a native of China, and the art of making sugar from it has been practised from the remotest antiquity.

WARMING HOUSES BY MEANS OF HEATED WATER.—If fire be applied for a sufficient length of time to the lowest part of a vessel containing liquid, the whole of the liquid, however remote it may be from the fire, will, as it is well known, ultimately become heated; for the water occupying the lowest strata, will continually ascend by its increased levity, till the entire mass receives the highest temperature of which it is capable.—An apparatus for the warming of houses, is constructed upon this principle. A small metal boiler, made water tight, is placed upon a fire in the lowest part of the building. A tube proceeds from this vessel, and is carried through all the apartments required to be heated, passing along the walls in any convenient direction. The tubes and boiler are completely filled with water. A fire is kept lighted under the boiler so as to heat the water it contains. As this becomes lighter by increased temperature, it ascends through the tubes and is replaced by the colder water descending; and this continues until the water in all the tubes is raised to the boiling point; the metal of the tubes becomes ultimately heated to the temperature of boiling water, and imparts an increased temperature to the air which surrounds them.—The same tubes, being furnished in proper places with cocks, will supply hot water for baths and other domestic purposes in every part of the building.

LARGE CROPS.—The Skowhagan [Me.] Sentinel boasts of a farmer in Penobscot County having raised 88 bushels and 3 pecks of wheat on 2 acres and 142 rods of ground; which has been beaten "all hollow" by Capt. A. Bowles of Lisbon, in this county, who raised the last season 110 bushels on three acres of stony upland, being almost 37 bushels per acre. In the same neigh-

borhood, Mr Asahel Garnsey raised a field of oat which yielded more than 80 bushels to the acre, or 76 bushels on an average of five acres together without having been manured for the last seven years.—*Haverhill (N. H.) Repub.*

THE MORUS MULTICAULIS.—*Friend Tucker.*—I noticed in one of thy Farmers, not long since, an article on the *Morus multicaulis*, recommending the cutting off the tops of the young trees in the fall, and covering up the stumps, to prevent the winter from killing the roots. I wish to inquire through the medium of thy useful Journal, whether the tops or branches so cut off may not be preserved until spring, and planted as cuttings; and if so, what would be the best mode of preserving them? If this can be done, I see no difficulty in propagating the *Morus multicaulis* by cuttings, in the hedge form, in our northern climate to any extent, in a very few years, and with a trifling expense. W. S.

Randolph, 3d of 3d month, 1837.

[B.]

THE FARMER'S SONG.

Away with grandeur, pomp, and gold,
 Away with childish ease,
 Give me but strength my plough to hold,
 And I'll find means to please.

'Tis sweet to toil for those we love—
 My wife and darling boys,
 Both tend to make my labor prove
 The sweetness of my joys.

The sweetest morsel I procure,
 When labor makes it sweet,
 Is eaten with a taste more pure,
 Than meats that monarchs eat.

'Tis mine—yes, 'tis my happy lot,
 From cares and av'rice free,
 To own but this secluded cot,
 Sweet friends and liberty.

Thus I no monarch on his throne
 Can grudge his destiny;
 Let him his weight of cares bemoan,
 Whilst I am truly free.

When labor wearies and grows dull,
 I take my books or gun,
 Thus I the sweetest pleasure cull,
 And thus all sorrow shun.

Now tell me all ye gouty train,
 Who have what fortune gives,
 Is not the cheerful country swain,
 The happiest man that lives?

ROTATION OF CROPS, POTATOES AND CORN.

Rotation of crops, is certainly among the most valuable of the modern improvements in agriculture. The scientific researches of many farmers have enabled them to discover some of the principles of vegetation, formerly but little understood. And it is believed that they will generally soon be fully convinced by experiment of the great benefits to be derived from rotation of crops. The different kinds of vegetables require nutriment peculiar to each class, and by planting the same kind on the same soil for a number of years in succession, the vegetables or plants degenerate for the want of their peculiar aliment; or as the common expression is, the soil becomes exhausted. It is therefore conceded to be an injudicious practice to cultivate the same crop, upon the same soil, for even two years in succession.

The same remark is applicable in horticulture; although a plentiful supply of manure annually, may afford some remedy for a previously exhausted soil.

By a judicious succession of crops, and the frequent use of that most important instrument to farmers, the plough, the fertility of the soil may be maintained. So many valuable essays have of late been published upon this subject, that we will not extend our remarks; but beg leave to refer to that of J. Hamilton Comper, republished in the Northern Farmer of 9th March 1833, as containing much valuable information, and as being worthy of an attentive perusal. Connected with this subject is the adaptation of the different soils to the various kinds of plants. Many skilful farmers acquire some practical knowledge of this subject, without understanding its true principles. Indeed, these principles cannot be well understood without the aid of the science of Chemistry. Chemical Science is indispensable to the Physician; but it falls not exclusively within his province. The practical farmer will find it of vast service in his pursuit. Its study ought therefore to be encouraged.

By ascertaining the food which different kinds of vegetables require, and the nutritious qualities of the various soils, the agriculturist is enabled to decide how he can, generally, produce the largest crops, with the least labor and expense.

He cannot have sufficient foresight to guard against unpropitious seasons; but acting upon enlightened principles and correct theories, his prospects of a good harvest will seldom be cut off. Our present object is to submit a few remarks upon two of our most essential agricultural products, potatoes and corn.

In this section we raise no vegetable of greater profit or more general use than the potato.—And its annual consumption seems to be yet on the increase. We learn from aged persons, that some fifty or sixty years ago, ten or fifteen bushels of potatoes were considered as a large crop for each farmer; and at that period, it was as uncommon for a slaughtered swine to weigh 250 lbs. as it now is, to weigh seven or eight hundred.—Now, a thousand bushels or even fifteen hundred, is not an uncommon crop, upon a farm of one hundred and fifty or two hundred acres.

It has been believed by many, that high, sandy or gravelly soils, are best adapted to the growth of potatoes. But the modern theory, proved by experiment, is, that a low, cold bottom, or clay-pan is preferable. I have for several years cultivated this vegetable upon a low, level, clay-pan, taking care to have proper drains in case of heavy rains; and find that it not only yields largely, but that the quality or flavor of the potato is superior to that of those produced on high, sandy soils. A cold bottom is more congenial to them. And it is generally known, that in a cold, wet season, they flourish better, than in a very warm and dry one. But when planted in low lands, the drains should always be kept open, to prevent overflowing.

It is said that in some parts of Ireland, famous for excellent potatoes, the potatoes are planted in low, and boggy lands, in beds, between which a ditch or drain is cut; and that the mud or most nutritious portion of the soil which gradually collects in these ditches, is taken up to cover the potatoes. The practice, which many farmers are adopting, of laying out their low and marshy lands into beds rising in the centre, of four or five rods in width, with intervening drains, running towards a common outlet, will prove highly beneficial; and when there shall be a great increase of population, and the value of our lands shall be greatly enhanced, this practice will be adopted by all good farmers. It will then be admitted by all, that our valleys, and swamps contain the most fertile soil. In these, have been collecting for ages, decomposed vegetable matter, which constitutes the deep black soil. This kind of soil conveyed on to high sandy barren land, with a mixture of animal manure, will convert the latter into fruitful fields. And the fertility of the low land is increased by spreading upon its surface, loose sand or gravel from the hills.

The old practice of making the potato hill in an oval form or the shape of a sugar loaf, is very censurable. The same remark is applicable to the corn hill. Because, hills so formed, do not absorb so much moisture, when the rain descends, as hills flat at the top.

It is believed that a former practice of planting small potatoes, is now universally condemned. But many are yet of opinion, that it is as judicious to plant cut potatoes, or slips, or the eyes, as whole potatoes. This practice is contrary to the course of nature. Nature is always right, in all her operations. The Farmer should take nature for his great and unerring guide.—Hundreds of various theories have been published upon this important point. The result of our observations and reflections, respecting it, is, that it is always best to plant the best potatoes whole, except those containing too many eyes, of unusually large size. The latter may be divided. I raised a potato, perfectly sound, of an oval form, weighing two and a half pounds. This I cut into twelve pieces, which from twelve hills, yielded two bushels. If slips are planted, the plants or sprouts come up more slender and feeble. In favorable seasons, they may often look very well, but not so well as those from the whole potato. Care should be taken to prevent the growth of too many sprouts or stalks. Four or five in a common

hill are sufficient. The size of the potato depends very much upon the number of stalks, and the size as well as richness of the hill. Potatoes degenerate by means of an improper mode of cultivation, and not from the climate. This vegetable of inestimable value contributes most to the health, growth and fitness of cattle, after being boiled, or steamed. It ought never to be given to swine in a raw state, unless, possibly, in the warmest season of the year, after being partially dried.

The common practice of mutilating corn stalks, or "topping corn," before the ear has come to maturity, ought to be condemned. It may be difficult to account for the origin of so singular a practice. But we trust that its termination will not be at a day far distant. It stands opposed to reason and philosophy. But our suggestions upon this important subject must be deferred until a more convenient time.

W. CLAGGETT.

Portsmouth, February 19.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northly exposure, week ending April 8.

APRIL, 1837.	7, A. M.	12, M.	5, P. M.	Wind.
Sunday,	30	39	30	S. W.
Monday,	24	48	40	E.
Tuesday,	30	40	36	N. W.
Wednesday,	26	42	38	N.
Thursday,	34	50	44	N.
Friday,	30	56	44	N.
Saturday,	40	60	46	E.

MULBERRY TREES AND SEED AT AUCTION.

By J. L. CUNNINGHAM,

Will be sold at (Office corner of Milk and Federal Streets) At Public Auction without reserve. Four thousand French Mulberry Trees, furnished to Captain Hurd, of ship Switzerland as a special favor, as the best kind for cultivation in France, the sale to take place on the 19th instant at 11 o'clock. Also, about ninety ounces of the choicest kind of Mulberry Seed, furnished by the same gentleman, and warranted to be fresh, new seed, of the last season's growth. It has been tried and found to be perfectly good. Ap. 12

FRENCH BLUES.

We have just received a few bushels of Potatoes with the above name, raised in Maine. They are very large size, productive, and good eating.

April 12 New England Farmer Office.

AMERICAN QUARTERLY.

Wanted, No. 59 of the American Quarterly Review, published by Wells & Lilly, 1824, for which a liberal price will be paid. Send by mail, or otherwise to Jos. Breck & Co April 12 New England Farmer Office.

JOBGING GARDENER.

WILLIAM SHERIDAN would respectfully inform his friends and the public that he will commence jobbing in Gardens, by the day or by the contract. W. S. will endeavor to give satisfaction to all those who may favor him with anything in his line, to the extent of his power and ability.

N. B. All orders left at the store of Messrs Worcester & Pierce, corner of Court and Tremont streets, or at his residence, No 2 Theatre Alley, Boston. will be promptly and faithfully attended to. March 22.

BREMEN GEESSE.

Bremen and Wild Geese for sale by JOHN PARKINSON Back street, Roxbury. March 15.

FRUIT TREES.

JOSEPH BRECK & CO. offer for sale 150 Standard Pear Trees of extra large size, of the choicest kinds including the Dutchess d'Angouleme, and many other fine varieties, and some entirely new.

Also, 50 Dwarfs on Quince stocks. The whole of these trees will come immediately into bearing, and are well worthy the attention of the horticulturist. Price \$1 to \$2 each. A few scions can be furnished if applied for soon.

Also, 150 Plum trees of superior kinds. Price from 50 cts to \$1.00 each.

100 Grape Vines in assortments of twenty, selected for the table, of superior kinds.

All the above trees and vines were imported by one of our first horticulturists, from France; and are in the finest order.

All orders for trees or shrubs will meet with prompt attention.

Just received at the New England Seed Store a fine collection of Double Pablia Roots.

Also, Gladiolus psittacaa; Double Tuberosa, striped leaved do. Amaryllis formosissima, and Tiger flowers.

April 5.

BRIGHTON NURSERIES.

For sale, 20,000 Morus Multicaulis, or Chinese Mulberry Plants, warranted the true and genuine kind. Orders addressed (by mail) to Messrs. WINSHIP, Brighton, Mass., for Mulberry, Fruit and Ornamental Trees, Shrubs, Creepers, Herbaceous Perennials, &c. &c. that are cultivated in any Nurseries in the United States, with a first rate collection of Green House Plants, will receive prompt attention, and, if required, forwarded to any part of the Union. Brighton, Jan. 18, 1837.

MOUBRAY ON POULTRY, &c.

Moubray on Breeding, Rearing and Fattening all kinds of Poultry, Cows, Swine, and other Domestic Animals. Seco id American from the sixth London Edition. Adapted to the Soil, Climate and Culture of the United States. By Thomas G. Pessenden, Editor of the N. E. Farmer, New American Gardener, Complete Farmer, &c.

This book, published by Joseph Breck & Co. Boston, and G. C. Thorburn, New York, is for sale at the respective establishments of those Gentlemen. The first edition of this useful book had a rapid sale, and met with a favorable reception. It has been carefully revised, and new and original information relative to its topics have been diligently sought and inserted in various parts of the Treatise.

March 15, 1837

SILK WORM EGGS.

Those who are about attending to the rearing of the Silk Worm, are informed that the subscriber has received from the south of France, a few ounces of the Eggs in very fine order; price \$10 per ounce, which it is believed is very much lower than they have ever before been offered, it being necessary in the warm and confined premises at John Street, to get them off, otherwise they will set up business for themselves. One ounce numbers 5000 eggs—can be forwarded per mail packed between a small leaf of wadding, or if by water conveyance in a small tin box.

Also, received from France, 5000 Morus Multicaulis Trees, 2 years old, price \$20 per hundred, in prime order.

GEO. C. THORBURN, 11 John Street.

New York, March 29. 3t

WANTED.

A Hive of Bees, warranted thrifty and free from moths, is wanted by an individual in this city. Any person having one of the most approved construction which they wish to dispose of, will please leave a line addressed to F. H. B. naming price, &c. at this office.

March 29. 3t

WANTED.

A Gardener well acquainted with the cultivation of flowers, and the management of hot beds, to go 35 miles from Boston, apply at this Office.

March 22

NURSERY OF WILLIAM KENRICK.

Nonantum Hill in Newton.



30,000 Morus Multicaulis, or true Chinese Mulberry Trees, can yet be supplied, wholesale or retail.

1,600 Pears of new Flemish and other finest kinds. Pears on Quince stocks, thifty and handsome, these will bear early and abundantly. 3,000 Plums—Also selections of all other hardy fruits from the first rate so rees and the finest varieties known.

Ornamental trees, shrubs and roses. Also Herbaceous flowering plants of the most beautiful varieties including Paeonies, and Double Dahlias.

Address by mail, post paid, to WILLIAM KENRICK, Newton, Mass. near Boston. Trees and plants when ordered, will be carefully selected, and labelled, and packed in the best style, and duly forwarded from Boston by land or sea. Transportation gratis to the city. Priced Catalogues will be sent to all who apply.

March 29.

The New England Farmer and Gardener's Magazine.

Published at the Horticultural Register Office, Boston, Mass. T. G. FESSENDEN, Editor. Price \$2 50 per year, in advance, or \$3 00 if payment is delayed until the end of the year.

This work has now entered upon its fifteenth year, and the increasing patronage and favor bestowed upon it from its commencement to the present time, convinces the proprietors, that their exertions to please have not been unavailing, and stimulates them to renewed exertions to maintain the interest and character of the sheet.

We give the weekly reports of the proceedings of the Massachusetts Horticultural Society; a price current of country produce, corrected with great care, weekly; and the report of the Brighton Cattle Market, which greatly enhances the value of the paper.

We are constantly receiving all the new agricultural publications that are issued from the American and English presses, and our exchange list is very extensive with all parts of the union. By these facilities we keep our readers informed of every new discovery in the progress of culture, and all useful knowledge pertaining to the great art which it is our object to advance.

The numerous economies from contemporary presses in the United States, show the estimation in which it is held by them.

AGENTS.

- New York—G. C. THORNBURN, 11 John-street.
- Flushing, N. Y.—Wm. PRINCE & SONS, Prop. Lin. Bot. Gar.
- Albany—Wm. THORNBURN, 347 Market-street.
- Philadelphia—D. & C. LANDEETH, 35 Chestnut-street.
- Baltimore—Publisher of American Farmer.
- Cincinnati—S. C. PARKHURST, 23 Lower Market-street.
- Middlebury, Vt.—WIGHT CHAPMAN, Merchant.
- Taunton, Mass.—SAM'L O. DUNBAR, Bookseller.
- Hartford—GOODWIN & Co. Booksellers.
- Newburyport—EBENEZER STELMAN, Bookseller.
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- Bangor, Me.—Wm. MANN, Druggist, and Wm. B. HARLOW,
- Halspar, N. S.—E. BROWN, Esq.
- Louisville—SAMUEL COOPER, Bullit Street.
- St. Louis—H. L. HOFFMAN, and WILLIS & STEVENS.

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School Street.

ORDERS FOR PRINTING RECEIVED BY THE PUBLISHERS

PRICES OF COUNTRY PRODUCE.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO		
APPLES,	barrel	1 75	2 25		
BEANS, white,	bushel	2 50	3 40		
BEEF, mess,	barrel	15 50	16 50		
No. 1,	"	13 00	13 75		
prime,	"	9 57	16 00		
BEEFWAX, (American)	pound	31	33		
CHEESE, new milk,	"	10	12		
FEATHERS, northern, geese,	"	54	60		
southern, geese,	"	54	60		
FLAX, American,	"		9 12		
FISH, Cod,	quintal	3 37	3 50		
FLOUR, Genesee,	barrel	10 87	11 00		
Baltimore, Howard street,	"	10 25	10 62		
Baltimore, wharf,	"	9 75	10 23		
Alexandria,	"	10 00	10 23		
GRAIN, Corn, northern yellow	bushel	1 13	1 20		
southern flat yellow	"	1 05	1 14		
white,	"	1 00	1 12		
Rye, northern,	"	1 50	1 75		
Bualey,	"	1 10	1 25		
Oats, northern, (prime)	"	65	70		
HAY, best English, per ton of 2000 lbs	"	22 50	16 00		
hard pressed,	"	15 00			
HONEY,	gallon	52	55		
HOPS, 1st quality	pound	7	8		
2d quality	"	5	6		
LARD, Boston, 1st sort,	"	14	15		
southern, 1st sort,	"	14	15		
LEATHER, Philadelphia city tannage,	"	30	32		
do country do	"	26	28		
Baltimore city do	"	27	29		
do, dry hide	"				
New York red, light,	"	21	26		
Boston do, slaughter,	"	21	23		
do, light,	"	19	21		
LIME, best sort,	cask	1 10	1 14		
MACKEREL, No. 1, new,	barrel	10 00	10 50		
PLASTER PARIS, per ton of 2200 lbs.	cask	3 75	3 25		
PORK, Mass. inspect, extra clear,	barrel	30 00	31 00		
clear from other States	"	27 00	29 00		
Mess,	"				
SEEDS, Herd's Grass,	bushel	2 27	3 12		
Red Top,	"	65	70		
Hemp,	"	2 50	2 75		
Red Clover, northern,	pound	15	16		
Southern Clover,	"	14	15		
SILK COCOONS, (American)	bushel	2 75	4 00		
TALLOW, tried,	lb.	12	14		
TEAZLES, 1st sort,	pr. M.	3 50	4 00		
WOOL, prime, or Saxony Fleeces,	pound	70	75		
American, full blood, washed,	"	65	70		
do, 3-2s do,	"	60	65		
do, 1-2 do,	"	55	58		
do, 1-4 and common	"	45	50		
Northern pulled,	Pulled superfine,	"	60	65	
		1st Lambs,	"	55	60
		3d do,	"	15	48
			30	35	

Southern pulled wool is generally 5 cts. less per lb.

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound	15	16
southern, and western,	"	13	14
PORK, whole hogs,	"	10	13
POULTRY,	"	18	19
BUTTER, (tub)	"	18	22
lump	"	20	25
EGGS,	dozen	25	
POTATOES,	bushel	75	1 00
CIDER,	barrel		

