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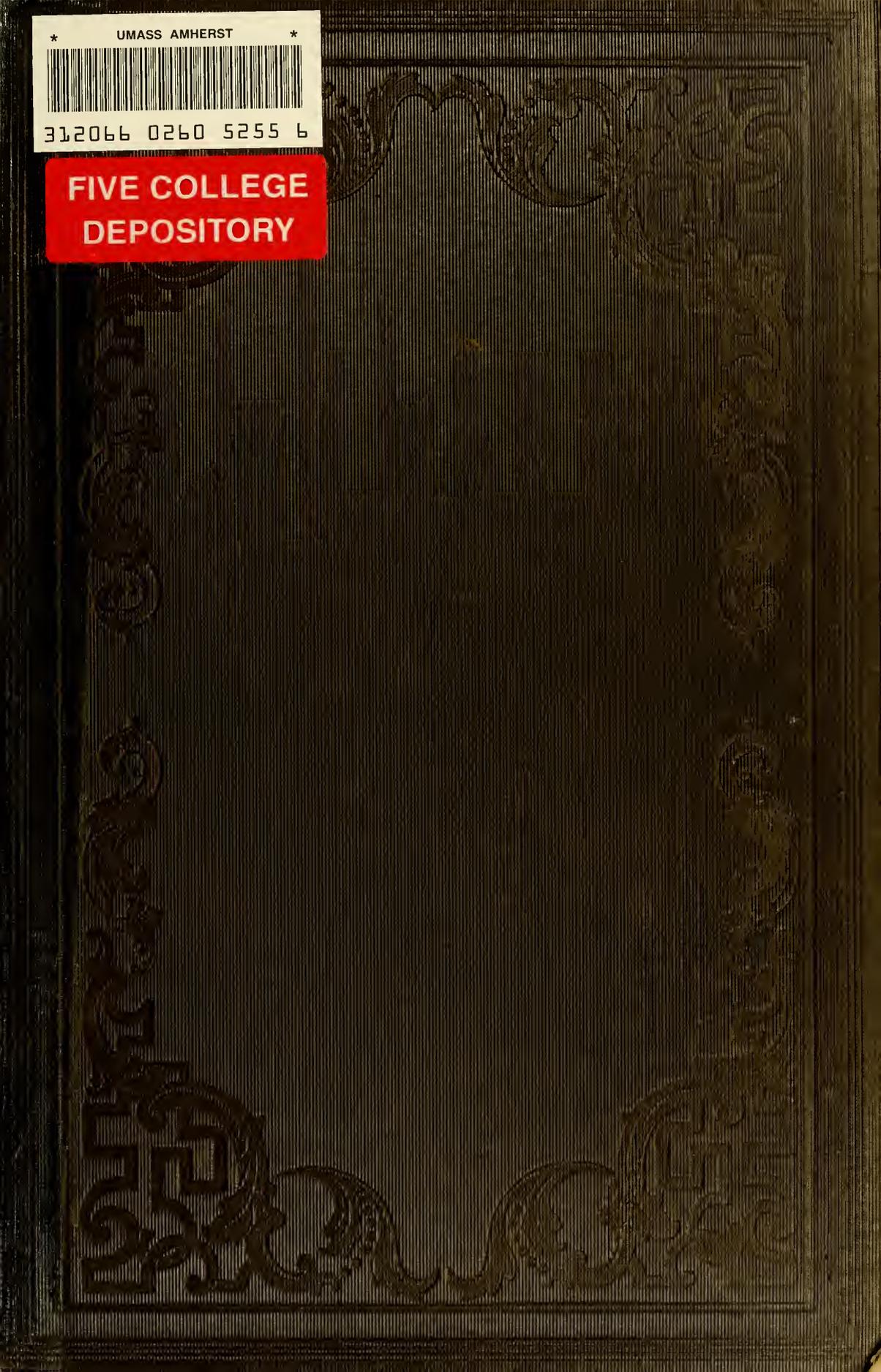
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THE
NEW ENGLAND FARMER;

A SEMI-MONTHLY JOURNAL, DEVOTED TO
AGRICULTURE, HORTICULTURE,

AND THEIR KINDRED

ARTS AND SCIENCES;

EMBELLISHED AND ILLUSTRATED WITH NUMEROUS BEAUTIFUL ENGRAVINGS;

"HONOR WAITS, O'ER ALL THE EARTH,
THE ART THAT CALLS HER HARVESTS FORTH."—*Bryant.*

S. W. COLE, EDITOR,

AUTHOR OF THE AMERICAN VETERINARIAN, AND THE AMERICAN FRUIT BOOK.

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DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, DECEMBER 9, 1848.

NO. 1.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PUBLISHER.

CONGRATULATORY.

We recently offered a valedictory, in another journal, and we are now happy in greeting the agricultural community, under circumstances so auspicious, in a new and more acceptable manner, in which the labors of ourself and our many kind friends, who aid us in the cause of improvement, will be in a compact and durable form, circulating on their own intrinsic merit, unencumbered and unaided by extraneous matter.

The Publisher will spare no expense in furnishing a work in good taste and style, and the Editor and Correspondents will endeavor to make it worthy a place among the most respectable journals of other classes, though it will be the *exponent* of a profession that is still in its infancy, both in art and science, and has not, until recently, assumed an importance even in the minds of the millions that pursue it, much less in the opinion of a still larger number who must live or starve, as this art flourishes or fades.

Within a short period, great improvements have been made in agriculture; yet we are just beginning to ascend the mount of knowledge, —

“Hills peep o'er hills, and Alps on Alps arise,” —

and a wide field opens before us, amply sufficient for the range of greatest acumen and profoundest philosophy. The most skilful in practice and the most thorough in science will find more subjects for investigation and experiment, than they can possibly explore even in a long life.

Every branch, throughout the whole routine of cultivation and economy, is susceptible of improvement, from our operations against the minutest insect that spoils the crops of the farmer, to the management of the noblest animal that aids in his labors; from the humblest plant that flourishes in the meadow, to the majestic monarch that waves in the forest. Every mode of culture and management must be tried by the hand of renovation; all the various productions

of the earth must undergo a most rigid scrutiny and the severe ordeal of exact comparison; implements and machines, the astonishing product of the greatest skill, science, and practice, must be improved, or the spirit of the age will write *Tekel* upon them.

We depend greatly on valuable communications, and the contributions of important matter, to give variety, interest, and value to the *NEW ENGLAND FARMER*, and we invite the cordial aid of the friends of this great cause, which is also the cause of patriotism and philanthropy.

On that magnanimous spirit, so conspicuous among farmers, of diffusing widely their discoveries and improvements for the general welfare, we confidently rely for assistance, as it is a source from which we may draw, and yet the fountain overflow and expand more and more, in consequence of the liberal drafts upon it. Such is the human mind, that the generous and benevolent acquire knowledge from its diffusion, and the liberal soul expands by its own munificence, and lives in the prosperity which it creates around it.

We are but a co-laborer with thousands of others in the vast field of improvement; and let us all strive to excel, and disseminate, broadcast, over the land, excellence in the art of culture, nor rest satisfied with what we have done until the wilderness shall blossom as a rose, and there is not a waste or barren spot in our favored country, nor a single cultivator ignorant of his profession. If there be an individual too *short-sighted* to read, or too *wise* to learn, the generous and intelligent should aid in giving him light; and we will most cheerfully and liberally contribute to so laudable a purpose.

MANAGEMENT OF WOOD LANDS.

The best way of managing wood lands, as to the mode of cutting, is to take all the wood clean off at once. Then new trees will start up under good management, and all have an equal chance, and

make a handsome, straight growth. The mode that has been practised by many, is to cut off the large and decaying trees, allowing the younger and more vigorous to remain. By this course, a few trees will spread their branches wide, and discourage any new growth. We have seen some of the finest wood lots mismanaged in this way; and as the largest and oldest trees were removed, the more thrifty increased and occupied the whole land, and after a while the whole lot contained but a light growth of scattering trees, with no prospect of any thing new, and the land became, in a measure, unproductive.

On the contrary, we have cut off all, and a vigorous growth succeeded, which became valuable for both timber and fuel, and for making sugar, where the rock maple prevailed, in the course of fifteen or twenty years.

For the New England Farmer.

SCIENCE IN AGRICULTURE.

MR. EDITOR: The progress of knowledge in those sciences connected with the art of cultivation, has been wonderful during the last half century. Geology, Chemistry, Botany, and Zoology, which barely had a name as sciences in our highest literary institutions, fifty years ago, much less any place as established branches of study, now have a place in the appointed course of study in the common school. The theories erected on our supposed philosophic knowledge are not always, perhaps not often, successfully applied in practice. One reason why it is so may be found in the imperfection of our knowledge; another, in the widely different results in the artificial laboratory, and the operations of the same principles in the field.

The analysis of a plant seems to show the chemist what food should be provided to nourish and mature that plant; but in the application he seldom realizes all the influence expected, and not unfrequently is entirely disappointed. In the life and growth of plants there is mystery which human knowledge cannot solve. Approaches to the truth are the highest pretensions of the deepest researchers into the laws of nature. Chemists of the highest attainments have no perfect confidence in the successful application of all their recommendations in agricultural pursuits; they advise farmers to proceed with caution, and never practise to great extent on any theory till facts, in carefully conducted experiments, shall have proved its correctness.

The exact delineation of experiments and the faithful record of the results are of great utility to farmers, and much of the space in an agricultural paper should be filled with details of them. Even those experiments, which, at first view, seem of little or no value, may assist some man in the discovery of an error, or fix his attention on some simple, though important fact, which had before escaped his notice. In the records of practical results, the farmer discovers motives to excellence in his work which would, in a great measure, be hidden from him in the perusal of a literary essay. What wonderful influences have been produced, what an impulse has been given to the exertions of many farmers, in the simple narration of the practices of Klyogg, who began his career in careful observation, and ended it in the possession of true philosophy!

In these views it seems very desirable that our agricultural papers should be in a form easy of preservation and reperusal. We want to compare present views and practices with those of by-gone years, and learn whether actual advancement is proportionate to the changes we witness. It is some-

times asserted, in somewhat boastful manner, that a complete revolution has been effected in agriculture, that labors are now governed by principles and prosecuted with instruments unthought of in former ages. It is not exactly so. In looking back as far as the days of Jethro Tull, we find, in his quaint language, intimations of nearly all the philosophical principles on which farmers now act; and in his cuts, the drafts of various implements, in form, were very similar to those now in use. Great improvements on the theories and practices of other ages have been made, and beyond this we have no ground of boasting. The continued progress of improvements will be most effectually promoted in critical comparisons of our theories and practices with those both of recent and more ancient experimenters.

MORRILL ALLEN.

PEMBROKE, Nov. 21, 1848.

EDITORIAL REMARKS.

The above communication, from a veteran and successful farmer, on the advantages of science applied to agriculture, is worthy the particular attention of those farmers who think that science is of but little importance to them. We are aware that some sciences that have an important bearing on agriculture, are, in this respect, very imperfectly understood, and that men of science differ on some points of great interest to the cultivator; yet this is a day of improvement, and we are constantly receiving more light from experiments conducted in a scientific manner.

One great consideration should be always in view; that is, all the operations of nature are one vast series of scientific principles, and all that can be done by men of practice and science does not change them one iota. The great object should be to learn what they are, that we may aid Nature in her operations, and thus render our labors lighter and more pleasant and productive.

For the New England Farmer.

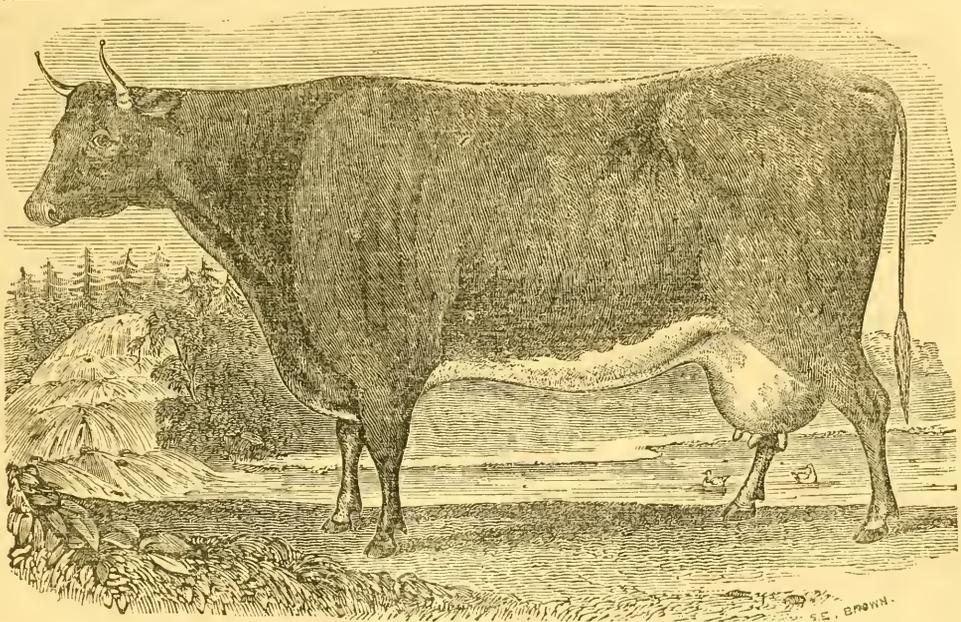
DITCHING.

MR. EDITOR: I have been trying the effects of ditching on my farm in Carver. I dug nearly two miles this fall; and meadows that were always full of water have been made perfectly dry. In all cases, where practicable, I have dug six to ten inches in the sand or clay, so as to perfectly drain the muddy part. My ditches have usually been four feet wide and three feet deep. In some places I could not reach the sand, but in most cases I was able to reach it, as I usually ditched near the shore, so as to cut off the springs, and then cut narrow ditches from one side to the other. If the narrow ditches did nothing more, they drained off the sour cold water, which will make the fodder sweet. Now it remains to see what kind of grass will take the place of the round grass and other useless kinds. After one year, you will hear from me again. The farmers say I have ruined the meadow. The mud I have carted to the barn-yard and hog-pen, intended for dry, sandy soil, which I think is worth more than manure without the mixture, especially on sandy land.

Yours, S. A. SHURTLEFF.

BROOKLINE, Oct., 1848.

SAFE SEAL. — A letter closed with the white of an egg cannot be opened by the steam of boiling water, like a common wafer, as the heat only adds to its firmness.



KAATSKILL, A NATIVE COW.

This is the portrait of a native cow, the property of R. Donaldson, Esq., Blithwood, Dutchess Co., N. Y., which was engraved for the Albany Cultivator. She gave thirty-eight quarts of milk per day, in June. Age six years; color brindle; weight 1170 pounds. We have selected it as a good representation of our best native cows, and if not a perfect model of beauty, proportion, and symmetry, it is true to our purpose. As our native cattle are made up of various races, and numerous mixtures of these different breeds, no animal can be presented as a type of the whole; yet the above is the general form of our best native milkers.

Probably no race of cattle can be found which excels our best natives for milk; yet we experience a serious disadvantage in not being able, generally, to produce this valuable quality in the offspring. The old adage, that "a good cow may have a bad calf," is often verified.

This is easily accounted for. The qualities of our finest native cows are often merely incidental, not a fixed property; therefore they will not always descend to the offspring. To remedy this evil, the very best stock should be selected, and then, by a continued course of judicious management, a fine race of animals would be produced, having properties of their progenitors, as the breed would become fixed, or what is called blood stock.

To the human race the cow is the most valuable of all animals. She affords the best of food to all, from infancy to old age. Milk contains all the elements of nutrition for every part of the growing animal or being. Alone it is valuable food, and is excellent with every species of bread, and almost every kind of fruit, and various other productions;

and the products of the cow may form a most valuable ingredient in almost every dish, and in many they are absolutely necessary to their excellence; and they afford the advantage of condensation and preservation, and become a convenient article of commerce.

Besides this excellent property in the cow, she is also useful for many other purposes, as well as other animals. Her products form a preparation for our feet, a light to dissipate the darkness of night, an oil for various purposes; her horns form many ornamental and useful articles, her flesh the richest viands; and with good discipline and gentle treatment, she may be made a valuable and economical instrument in labor; and why not take exercise as well as other prolific animals, and as well as wild animals, that, in the same productive state, range forest and mountain, with severe exercise, in search of food, for themselves and offspring.

The cow being so important to our sustenance and comfort, she should be treated with the greatest kindness, and fed and managed with best care. Give her a warm, dry shelter, a neat and well-ventilated house, curry often, give her a plenty of drink, and good food, at regular periods, and she will richly pay for all extra expense and care.

—
THE POTATO ROT. — All parts of our State seem to be again afflicted with this terrible scourge. Every where it has made its appearance with more or less virulence. Our correspondent in Essex Co. reports the crop there to be in a great measure lost. In this neighborhood its ravages have not been so severe, but nearly every field is more or less injured. So much heavy rain as we have had during August and September has undoubtedly been one cause of its prevalence. — *Vermont Agriculturist.*

For the New England Farmer.

EXPERIMENTS AND CONCLUSIONS.

MR. COLE: There is great proneness in the human mind to form theories from single facts — to generalize and lay down principles from isolated observations. This aptitude to form hasty and erroneous opinions, from few facts and experiments, is remarkable on agricultural subjects. Hence theories and dogmas are promulgated one year as fixed truths, that are exploded the next. On no subject is it more difficult to come to any certain conclusion from an experiment, or even half a dozen experiments, than in agriculture and kindred arts.

So many elements enter into the operation, that much uncertainty must rest on what produces the result. The infinite variety of soils, the different qualities of manures, and the ever-varying weather, in different seasons, will baffle the efforts of the most acute experimenters; and nothing but long experience, close observation, and skilful management, varied for a series of years, can settle, with reasonable certainty, any principle in agriculture. The chemist, in his experiments, uses no articles whose strength is not known, and then he weighs each ingredient with scrupulous exactness, and makes his combination with the nice and prescribed rules of science. The agriculturist cannot, with like precision, make his experiments, but must exercise discretion and judgment in approximation to probable correctness. Many writers for agricultural papers do not seem to be aware of the difficulty of farming experiments, and of the uncertainty of many of their conclusions. From this arises the want of confidence, in the public mind, in paper speculations on the subject. Did writers for the periodical press content themselves with stating facts, and all attending circumstances likely to affect results in their experiments and operations, they would render much more service to the public, and command more attention and confidence, than in hastily spinning theories, or announcing some supposed discovery of mighty import, from a partial and imperfect experiment, that in fact proves worthless.

For instance, the numerous speculations, principles, and dogmas in regard to the potato, often laid down with the air of infallibility, are known to every experienced farmer to be nearly all merely imaginary. So of the disease that has of late so nearly destroyed that useful root, its cause, remedy, and prevention, almost daily is announced some great discovery, drawn from a single fact or experiment, that proves fallacious. One man will notice a shower just before his potatoes are struck with the rot, and he will lay it down as the certain cause, as though that shower extended over Europe and America. Another discovers some fly or insect about his potato tops, just before he discovers they are diseased, and then, with flourish of trumpets, he announces the great discovery of the cause.

Some assert dogmatically that the cultivated potato has lived out its life, and must be renewed; others, that the disease is undoubtedly the effect of high cultivation; and so on to the end of the chapter, if the chapter is ever to have an end. Such conclusions, jumped at from slight observations, were finely illustrated by a neighbor, who said his potatoes in his long rows were but slightly diseased, while those in the short ones were nearly all rotten. He did not, however, lay down the dogma, that long rows were a certain remedy, for he was a man of sense, and sought for some explanation from other circumstances, and recollected that in planting, he furrowed his ground with his oxen, where he could do it conveniently, forming long rows, and planted his potatoes there deeper than in his short rows, where the hoe was used instead of the plough.

His conjecture as to the cause was probably correct

in the circumstances of that particular case, of the nature of the soil and season, so far as the virulence of the disease was concerned; but the experienced farmer, who has suffered for a series of years by the disease, knows that, under some circumstances of season and soil, the deep-covered potatoes suffer least, and under others, the most.

These considerations demonstrate the necessity, in making experiments, of great care and accuracy in the operation, and of continuing them for a series of years before any certain or valuable conclusions can be drawn from them. The facts and results, with so many of the circumstances detailed as possible, should be yearly published, as facts for the benefit of other experimenters, and as useful hints for the practical farmer, as well as the experimenter. In communicating such facts to the public, the nature of the soil should be accurately described, the time of the various operations, and character of the season as to temperature, and moistness, or dryness, and particularly for what articles of production the seasons are most favorable and otherwise.

RUFUS M'INTIRE.

PARSONFIELD, ME., Oct. 1848.

For the New England Farmer.

POULTRY

A PROFITABLE PART OF FARM PRODUCE.

MR. EDITOR: There are no animals raised on a farm that are more neglected by farmers than poultry. They, in fact, receive but very little attention, and are rather left to take care of themselves, than fed at regular seasons, and in other respects properly provided for. Why this is so, it is difficult to say, unless it be that the profits of poultry are not supposed to pay for the expense of feeding them. But that this is a mistaken notion, the experience of those who have bestowed care and attention in keeping poultry, will warrant any one in asserting.

The objects of the farmer in keeping poultry are twofold: 1st. The raising and fattening of them for market; 2d. Obtaining from them eggs for the same purpose. These two articles, fowls and eggs, are generally quick of sale, and command good prices. If any farmer believes otherwise, let him enter any large market stall, or grocery store, where eggs are sold, and witness the piles that from day to day are disposed of and replaced by others; or, what is far better, ascertain the amount of sales which the egg account shows at the end of the year. Let him ascertain, too, the amount of eggs consumed at a single hotel in the city, or at any large confectionary or bakery. Let him count up the probable number of dozens consumed in a large city in a single day; and he will almost begin to think that the chief food of its inhabitants is eggs — eggs — and nothing but eggs.

So, too, of poultry. Take the following item, which appears in a recent English journal, as in point on the consumption of this article abroad. "Mr. Bailey, poulterer, of London, states that one London salesman sells annually £100,000 worth of poultry; that he himself paid £81,000 last year for poultry, and that £15,000 are paid yearly at Aylesbury for young ducklings." That the sales of poultry in the Boston market would present a corresponding exhibit, there can be little doubt. Perhaps some poulterer there might be induced to make an estimate on the subject. In the absence of such an estimate, it may be stated, on good authority, that in the town of Lynn are two poulterers, who kill, in the warm season, on an average, one 500 and the other 300 chickens every week for the Nahant tables. They have men specially employed to collect poultry from a large circuit in that vicinity.

With such a demand, increasing every season, will it not pay well for our farmers to keep more fowls, to select the best variety, to feed them higher and more regularly, and in fact to make the rearing of poultry an object of equal importance with that of raising swine or fattening calves? There are many suggestions which might be offered on this question; but enough, perhaps, has been said to attract more attention to it than it has hitherto received from the farmers of Massachusetts.

ALLEN W. DODGE.

HAMILTON, Nov. 11, 1848.

—
 For the New England Farmer.

WOOD AND TIMBER LANDS, PLANTING FOREST TREES, &c.

MR. EDITOR: The faithful injunction of "Axeman, spare that tree," is unheeded by the pioneer. Timber he fells, he burns; he scatters his fires, and glories in conflagrations which deaden the forests, as though forest trees were his natural enemies, and he was bent upon extermination. He rarely stays his hand until his own wants, or a good market, calls for lumber. But, alas! he exclaims, I had some once, and knew not its value.

His forty-acre woodlot, economized, would have produced abundant supplies for home use, and much for market. But he has cut the young, the thrifty, and the straight-grained, because it was more easily prepared for fuel. The aged, gnarled, and decaying stand or lie as scattering monuments of his folly. Kind Nature, man's best friend, attempts to repair these breaches in her sylvan shades, made by man's improvidence. By her various agencies, unaided by man, she scatters her forest seeds, and soon the pippins of the oak, the pine, the white ash, sugar-maple, and hackmatack, valuable varieties, make their appearance, and thrive in proportion to the congeniality of the soil. But hungry cattle and sheep are turned to the woodlot to browse before the grasses of spring are sufficiently grown, and the ruin is completed. Nature now, as if disgusted with man's folly and indolence, adopts the suggestion of Solomon, "A rod for the fool's back," and mosses, brakes, thistles, burdocks, brambles, and worthless shrubbery, are her chastisements.

Reader, have you wood and timber lands? Guard them from fires as you would protect the apple of your eye. If fires or the axeman's folly has injured your lots, as soon after it as the following November, select seeds from the best varieties of healthy trees, growing on soils similar to those you wish to plant, and aid nature in repairing the breaches. Thus you may cultivate the valuable, to the exclusion of the worthless. Keep out your cattle till the young forest is above their reach. Spare the thrifty, and cut the old and decaying; fell with care, to spare your saplings.

Plant your white ash on rich, moist soils; your oaks will thrive on land hilly, rocky, and unfit for tillage. Your pines will grow on almost every variety of soil not too boggy. Your hackmatack, more valuable than oak for knees, beams, and top timbers for vessels, combines strength with durability, and never corrodes the iron fastening, as does the oak from its acidity. This valuable timber* will

* A writer in the Cultivator thinks the hackmatack would thrive on upland. I am not surprised that he should think so. When young, it grows thriftily on tolerably dry soil; but before it is large enough for use, a dry rot seizes the heart, and the black ants eat it to a shell. Having cut thousands of tons within the last fifteen years, I am able to say, I have never found one tree of old growth, upon upland, that was sound. Thus, those who would plant for timber should be cautious and select swamps and moist land.

only grow to maturity on soils too wet and miry to be profitable for the growth of other timber.

The alder, black ash, and cedar are its neighbors; the borders of bogs and muddy streams are its favorite locations. Millions of entirely unproductive acres, in New England, are admirably adapted to its growth.

Shall a commercial people longer shut their eyes to the importance of encouraging the protecting and growing such valuable timbers for ship-building, as the oak and hackmatack? And who is there that does not know the value of white ash and white pine for other purposes? Yet how few protect them, either from indolence or a fear that posterity only will be benefited. Yet numerous facts like the following may be found. Near the junction of the Kennebec and Sebasticook Rivers lived, forty years since, a Mr. William Gatchell. He had occasion to build him a dwelling-house. *In his lot, timber could not be procured for the frame.* He was then poor, owning a piece of clay loam, destitute of wood, yet covered with sprouts. He cut down the worthless, and left the white oak and white pine. He is now rich, and his property is timber, on that very land, worth several hundred dollars per acre. Good judges estimate the increased value to be more than twelve per cent. Yet no man calls him a usurer. He tills a little productive farm, lives happy, appears yet in the prime of life, does not keep his prosperity a secret, but advises all to take care of their sprouts. Beyond this he has no key to unlock the chests of Mammon, save that he never goes to law, seldom swaps horses, or dabbles in politics; but always takes an agricultural paper, and pays for it. Reader, if your land has sprouts, go and do likewise.

JESSE SMART.

TROY, MAINE, Nov. 1848.

—
 For the New England Farmer.

BEE-ROT.

MR. COLE: I have observed this disease in the hive for more than twenty years; but have hitherto been unable to learn the cause, or remedy. The bees perish, and rot while in their cells, in the chrysalis state, and the young in the hive are found to be a complete mass of corrupted matter, with only here and there some young, apparently healthy; which invariably results in the overthrow of the hive generally in the course of a few months, sometimes continuing along a year or two from the commencement of the disease.

My attention has been directed to this subject for many years, and as I had come to the conclusion that dead chrysalises were produced by a chill among the young, in the breeding season, I constructed hives in such a manner that a little care would secure the brood combs from any sudden changes of weather; but as this remedy seemed to be insufficient, I constructed both the hive and bee-house in such a way that no frost would ever be found in the hive in the coldest weather, and the sudden changes of atmosphere during the breeding season could have no effect on the brood combs in the hive. I have urged this matter with much confidence before the public in some of my published communications; but still the rot continues unabated; but like the disease in potatoes, with increased magnitude. Bees that are kept secure from the changes and chills of weather, seem to be equally liable to this disease as those are that stand out and are more exposed.

The cause of this disease among the young in the hive appears to me to originate chiefly from an inefficiency in the pollen of the flowers or bee-bread, or the honey with which it is mixed, or some other substance that is mixed with pollen and honey, and

looks like milk with which the young are fed while in the larva state. *Here is the difficulty*; some of the bees hatch and become perfect and lively working bees, while others, from the same litter of eggs, burst off the cap of the cell where they were confined during their dormant state, and come forth feeble and emaciated, only "born to die," unable to perform any labor, even without stings, while others, some with life, but unable, through extreme weakness, to escape their cell, while a majority of them remain entombed in their little prisons without life, and all the brood combs soon become a complete burial-ground, with only here and there a spot where another of the inmates of the hive could be entombed. In this way the hive dwindles away, and the number of their companions so reduced that the bees are unable to guard themselves from their enemies, the robbers, or the moths, and are unable to raise animal heat in sufficient quantity to make the honey warm and nutritive, and they perish with cold and hunger, even where plenty of food is at hand.

I make these remarks with a view to call the attention of the friends of the apiary to this subject, and if possible save this most industrious and useful community of insects from a pestilence which is by far more threatening to their existence than their formidable enemies, the moths.

JOHN M. WEEKS.

WEST FARMS, NEAR MIDDLEBURY, VT., Nov. 1, 1848.

P. S. Since the potato rot commenced, in 1844, I have lost yearly about one third part of my stock of bees, by this disease; and unless some remedy can be prescribed, the management of the apiary in many localities will be brought to a close.

J. M. W.

For the New England Farmer.

AGRICULTURE IN MAINE.

MR. COLE: In giving you a few hints in reference to farming in this region, my remarks may be somewhat desultory and wandering, or a sort of a hash. When I say this region, I would premise that we are located on what is frequently termed the "height of land," situated about midway between the Penobscot and Kennebeck Rivers; where any one having a taste for rural scenery, and a soil in every respect adapted to successful husbandry, would find free scope for his mental and physical powers.

The past season, with us, has been one of unusual moisture; is so recorded by the weather clerks, and will be referred to in coming time as "the rainy season;" yet the bottles were sealed up for a time, at a most important period, which enabled the farmer to secure a most bountiful crop of hay. Corn and oats, too, are abundant, and the ways farmers "put in" for these, especially the latter, were neither few nor small. Our wheat crop may be regarded as a failure; though red bearded, sowed about the middle of June, has yielded a fair return for labor bestowed; the successful growing of wheat sowed at so late a time, is at variance with our former modes, and would seem to denote atmospheric changes.

Of the potato, it is hardly necessary for me to speak; the unseen destroyer has visited alike the cultivators of this root in every land; but I am strong in the faith, that he will again retire, when the potato will resume its wonted fairness. The failure of the two great staples, wheat and potatoes, has sadly diminished the profits of farming in Maine; for the time has been when the farmer could rely at all times upon bread made from the wheat of his raising, and meet his grocery bills with the proceeds of sales from his surplus potato crop; nevertheless, the country has continued steadily to advance in resources, and in all the means condu-

cive to the substantial comforts of the people. The causes are obvious to the most casual observer; the country is dotted over, and apparently sowed broadcast, with a population unsurpassed for industry and intelligence. *We know no pastimes but those of productive labor.* We eat, work, and sleep, and then we eat, work, and sleep again.

Should a circus or a caravan be approaching, they are forthwith warned off by the fathers of the towns, in fear that the purses of the dear people would be found minus a quarter. In the improved condition of the country, may be noticed a corresponding improvement in all our domestic animals. Some half century since, when our forests first echoed with the pioneer's axe, when our cattle were raised on browse and sheltered in hovels, a pair of oxen six feet in girth were quite as much of a novelty as a yoke of seven feet are now.

Respectfully yours,

HENRY BUTMAN.

DIXMONT, MAINE, Oct. 28, 1848.

For the New England Farmer.

ON MANURE AND ITS APPLICATION.

MR. EDITOR: The application of manure in a manner best calculated to renovate the soil, is a subject that can never be exhausted. Perhaps there are few subjects, moral, religious, or political, on which there is a greater diversity of opinion, or one in regard to which so few are fully satisfied that their method is perfect, and admits of no improvement.

It is, however, pretty generally conceded that our fathers were wrong in throwing their manure out of the barn window to be leached through the winter without covering; and in applying their manure to crops, a shovelful in a hill, without any auxiliary dressing, and their remissness in neglecting to compost by carting soil, mud, &c., into their barn-yards and hog-sties. Yet we should bear in mind that they cultivated comparatively a virgin soil; that they were the pioneers or sons of pioneers; that the soil they cultivated was less exhausted of its vegetable matter, and scarcely needed renovation. By continued cultivation our soil has in a measure been divested of its primitive vigor, and needs in some shape a remuneration for its former exertions. At this day, there is little disparity of opinion as to what substances are best calculated to renovate different soils, or the manner of composting. But as to the time and manner of its application, a diversity of opinion exists. Some contend that to top dress land with any kind of manure is a wasteful practice; that it should all be turned under by the plough or buried with the harrow. Others contend that manure should never be covered with the plough; that it buries it too deep and it sinks into the earth, affording little or no benefit to vegetation. We are free to acknowledge that no general rules can be laid down for the application of manure, with safety, without a knowledge of the nature of the soil; but so far as our experience extends, we think a suitable compost can be advantageously applied to grass lands at a proper season; and as a general rule, we think that season is as soon as may be after the crop is taken off.

In the application of manure to arable land for grain crops, where the soil is a sandy loam, and liable to suffer from drought, we have invariably found it the best policy to spread green, unfermented manure on top, and plough it under with the plough. This system we have practised for a series of years with satisfactory results. By this you will perceive that we still adhere to our old theory, that in such soils the gases arise from the decomposing manure (buried beneath the furrow) in proper season to carry out the crops, and that its salts never sink beyond the reach of vegetation.

On low lands, on soils of a tenacious character, where black mud or clay predominates, we think the application of manure on the furrow to be mixed with the soil with the harrow is preferable; manures buried deep beneath such soils would be less likely to receive sufficient influence from the sun and atmosphere to decompose and evolve the gases in season to benefit the crops, besides the liability of such lands to be inundated and overflowed by powerful rains, which would leach the soil and transport much of the manure beyond the reach of vegetation.

HORACE COLLAMORE.

PEMBROKE, Mass., Nov. 1848.

For the New England Farmer.

THE ORCHARD.

MR. EDITOR: Now that the farmer has secured his ample harvest, and a season of comparative leisure is before him, it is natural that he should turn his mind to future employments in his honest and laborious calling. He now wisely arranges, in his view of the coming year, which field shall be devoted to corn and which to wheat, which to this crop and which to that, &c., until the next harvest almost rises in perspective before him, as the long winter passes away.

Among things entitled to his notice, and worthy of his care, the orchard comes in with a superior claim. What healthful delicacies it affords his family, and at how cheap a rate! A few hours' labor and a little timely care each year, and he may have a complete cycle of choice apples, pears, plums, cherries, and oftentimes peaches, in their several seasons, to regale his taste and contribute to his comfort. There are no luxuries of foreign climes so cheap, so healthful, and so delicious as these; yet how shamefully is their culture, even in this age of progress, neglected while thousands of dollars are expended every year in the purchase of foreign fruits, which, in too many instances, operate to the detriment, instead of the benefit, of the consumer. Let this money be expended in fruit trees adapted to our lands and what a saving would result in a short time! Being amply supplied with *fresh* fruits, we should no longer crave the insipid and stale ones, which are too often picked in an immature state, in order to enable them to bear transportation.

But, says the aged man, "I am too *old* to plant young trees; I should never live to see them bear." He may not, and the young may not live to realize the fruit of their labors. But will this give them an excuse for neglecting any of the provident duties with regard to the future? "Work while the day lasts," is an injunction applicable to temporal as well as spiritual things, and applies to the aged as well as to the young; for who knows but both may enjoy the fruit of their labors? We see men, even in the latest years of a protracted life, anxious to secure a good bargain, in order to gain a *few dollars more*, to be bequeathed to their children. Is it any more unreasonable for them to be anxious to leave the old field in a high state of cultivation, beautifully dotted over with luxuriant fruit trees, ready every spring to perfume the air with their blossoms, in tribute to his fragrance who gave them locality, and every autumn resting their rich and mellow fruit upon the lap of earth, emblematical of his mature fall into the kind bosom of the mother of all men? Aged men, arise and plant, and your country will pay tribute to your patriotism and posterity; and as they look upon your labors of love and kindness, will rise up and call you blessed.

It is to the young, however, that fruit culture commends itself with the richest inducements. And what brighter remembrancer of youth's joyful days, can we have than in the tree that commenced life's

journey at our side, and is yearly giving richer and kinder memorials of the gratitude for our care in its protection in its ample foliage and *delicious* fruit?

To the young, then, rise and plant. Yes, plant; sow your fruit seed in a mellow soil, and next spring, when the young germs appear, keep them free from weeds as you should your hearts from the vices that surround you. When of a proper size, graft them with your hands, and give them, through all the period of their early growth, the service they may require. What a pleasure it will be to you in old age, after having been regaled year after year with their bounties, to tell to all around you, "That tree in that orchard *I raised from the seed*. I grafted and transplanted it with my own hands, and by my timely pruning gave it the beautiful, open head it now possesses. It has repaid me a thousand times for my earnest watching and timely cares. It must soon pass to the benefit of others, but I am happy that I have so rich a legacy to leave them. With proper care, it will be an ornament for years to come, and its fruit a blessing to other generations. If they neglect it, and let it perish for want of nurture, the loss is theirs. Young men! now I am old, listen to my advice, and plant, for your own pleasure and profit, and the good of posterity.

W. BACON.

ELLENWOOD, Oct. 1848.

MANURE.

There is not a farmer in all the land that is not aware of the great importance of manure; yet only a few practise upon this knowledge, and gather up the fragments, that nothing may be lost. Not more than one tenth of the farmers in our country are strict economists as to manure. A great many allow of a most extravagant waste, by throwing their manure out doors, exposed to drenching rains, a hot sun, and severe frosts, all tending to scatter it to the winds, or sink it into the earth. In these and various other ways of waste, one half is lost, while exhausted lands and meagre crops are prominent monuments of gross negligence or want of skill.

The good farmer not only saves all his manure, but he increases it by the addition of large quantities of mud, muck, peat, loam, sand, clay, sods, &c. All these, composted with animal manures, are excellent. The mud, clay, and muck improve the texture of light soils; and sand, gravel, and loam, are improvers of heavy soils. These and various other substances, such as sawdust, fine shavings, leaves, weeds, refuse hay, straw, and other litter, absorb the liquid manure, and save the solid from waste, by a mixture with the earths, which moderate fermentation, and absorb the gases, and become a good manure themselves.

Experiments in saving the liquid manure of animals in loam, and applying it to one piece of land and the solid parts to another piece of the same size, show that the liquid part is equal to the solid part. The economical farmer generally has a barn cellar for manure, with some earthy materials, as absorbents, and to mix with the solid parts. In this way, the quantity of manure may be increased two thirds, without any reduction in its value per cord.

Those farmers who have no barn cellars, and cannot make them immediately, can use various materials, such as we have named, on the floor, to

prevent waste; and make a shelter over the heaps. But with a good share of earth, united with it, there will be far less waste when exposed out doors.

Some farmers put under the floor a few feet of earth, to receive all that runs through; others place the earth, and use it as a bed for the cattle, and dispense with the floor, and as the earth becomes wet, it is thrown out, mixed with the more solid manure.

There are so many convenient modes of saving all the manure, that there is no excuse for allowing one half to go to waste. In the fall, the manure should be removed from the barn-yard, and a liberal layer of earth supplied to absorb the liquid manure, and by admixture save the solid from waste. Any earth is useful, but it is better to use that of a different texture from the soil to which it is to be applied. This mode not only saves from waste in the yard, but it forms a compost which prevents waste after the manure is applied.

WORK FOR THE SEASON.

Stern December, with his scowls and frowns, his pelting storms, freezing blasts, and fits of sunshine, is a busy month, in which the farmer finds no time to visit his friends, or sit by the cheerful fire, and enjoy the fruits of his summer's labor, excepting the long evenings afford a pleasant leisure-season for social improvement.

The manure being all taken care of, and provision made to save it in future, ploughing may be attended to in suitable weather. Late fall and early winter ploughing improves a hard soil, destroys witch grass, and forwards spring work. Large stones, to be hauled in winter, should be placed on small ones, to prevent freezing to the ground.

Every animal should be made comfortable by a warm, dry shelter. This is not only excellent economy as to the condition of the animal, and the production of milk cows, but in the saving of food; for in cold weather, particularly with animals exposed, a large quantity of food is consumed in supplying carbon or fuel for the lungs, by which the heat of the animal is sustained. Every farmer knows very well that animals eat much more in cold than in warm weather. The difference is plainly perceived as the weather changes.

Prepare fuel for one year. More can be done in one day early in winter, than in two days when the snow is deep. Economy in the use of fuel is an important subject. A large fire in an old-fashioned fireplace is pleasant and healthful, owing to excellent ventilation, but too expensive, as nine tenths of the heat are wasted.

Provide comfortable, convenient, and well-ventilated school-houses. Our school-rooms, in these respects, are generally far inferior to our churches and private dwellings. Why? Children are crammed together in close rooms, regardless of their health and progress in education.

Secure roots, cabbages, pumpkins, squashes, and fruit. Protect fruit trees from cattle; they prune too closely and indiscriminately; save your grain from rats and mice; make drains to protect tillage

lands from washing. Prune grape vines, if not already done. Do not allow the sun to shine on bee-hives during winter, as it invites them out. Secure all farming implements from the weather. There is great economy in chopping straw, hay, cornstalks, &c., and as farmers are learning its utility, the practice is extending.

By all means, prepare to settle all accounts by New Year, and not only see how your account stands with others, but adjust your account with yourself also. See whether you are industrious, economical, and thrifty, or becoming rather indolent or extravagant. These evils are apt to creep on imperceptibly, if we do not keep a strict account with ourselves, and settle often. Continue to make progress in useful knowledge; never rest satisfied with present attainments, lest your example influence the rising generation. Let your motto ever be, "Onward!"

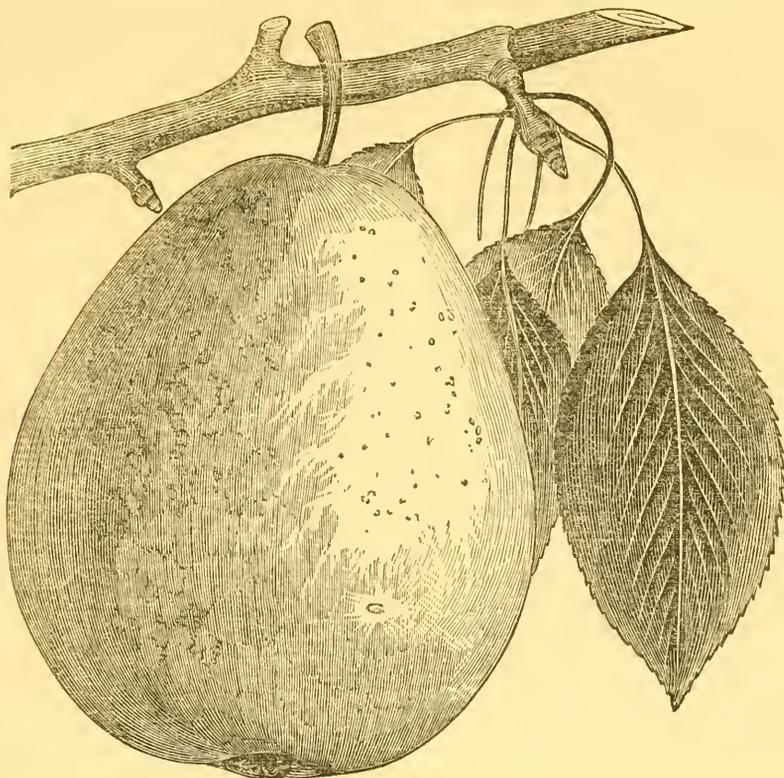
BOOK KNOWLEDGE OF FARMERS:

DERIDED BY WHOM?

With a man of any reflection and honest care for progress in all the arts and employments of useful industry, there are few things more trying to his patience than to hear men, sometimes even gentlemen, who have some pretensions to education, and who therefore ought to know better, denouncing book knowledge, as affording any guide in practical husbandry. Now, to all such, and especially to practical men who succeed well in their business, and who have always something useful to impart, as the result of their own personal experience, does it not suffice to say, "I am obliged to you for what you have told me; your integrity assures me that it is true, and your success convinces me that yours is the right rotation, and yours the proper process, since I see that while you gather heavy crops, your land is steadily improving; but now, my friend, let me ask you one question further. What you have imparted is calculated to benefit me personally, and unless communicated again by me to others, with me its benefits will rest. Now, suppose, instead of the slow and unsocial process of waiting to be interrogated, and making it known, to one by one, as accident may present opportunities, you allow me to have recourse to the *magical power of types*, which will spread the knowledge of your profitable experience, gained by much thought and labor, far and wide throughout the land, that thousands may enjoy the advantages which otherwise I only shall reap from your kind and useful communication. Will not that be more beneficial to society, and is it not a benevolent and a Christian duty not to hide our lights under a bushel?" Doubtless such a man, if not a misanthropic churl or fool, would say, Yes. Yet the moment, by means of types, such knowledge is *committed to paper*, it becomes (by fools only derided) *book knowledge*. — *Plough, Loom, and Anvil*.

FRUIT CONVENTIONS.

We shall, in future numbers, give the doings of the great pomological conventions at Buffalo and New York, so far as relates to their decisions on the merits of fruit. The doings of these large bodies of intelligent men, from different and distant parts of an extensive country, are both interesting and important.



FLEMISH BEAUTY PEAR.

CHARACTERISTICS: size, large; form, roundish obovate; skin, rough, yellow, or greenish yellow ground, with dark russet spangled and marbled over the whole surface, and an occasional tinge or blush of brownish-red; stem, generally more than an inch long, stout, in a small, narrow cavity; calyx, small, open, in a broad, shallow basin; flesh, yellowish-white, not very fine texture, juicy, melting, of a rich saccharine, and slightly perfumed flavor. Fine specimens are excellent, but, like most foreign, and some native pears, it is rather variable in quality.

The Flemish Beauty is a very luxuriant grower, and a good bearer. It needs a deep, rich, warm soil. Ripens from September 15 to the last of October. Best ripened in the house. It should be gathered at an earlier stage than most other pears, even before it has hardly attained its full size. It has received but little attention in orchard culture. It ranks among the most valuable varieties.

FRUIT.

To almost every individual in the country this subject is important. Fruit of good quality and condition is a delightful luxury, which may be used freely with decided benefit. It is conducive to sustenance and health, and it may generally be produced so as to be used as a matter of economy, being an excellent substitute for more costly dishes.

We are yet in our infancy in regard to fruits, though some cultivators have done much. Most farmers have but little fruit excepting apples, and they are not of the best qualities in many orchards. Light must be diffused throughout the country on this subject, and a great change take place, before cultivators generally will have a good assortment of the various species of fruit, though this desirable purpose may be easily attained by any person who is zealous to accomplish it.

Every one who cultivates fruit should learn, from the experience of others, as well as from his own. It is well for those who have extensive lands, and a plenty of time and money, to make numerous experiments for their own pleasure and others' profit; but those who would combine utility and pleasure, should be cautious and avail themselves of information already gained by long and varied experience, else they may find, rather late in the day, much vexation, that their life is but a series of unsatisfactory experiments, and that old age finds them just ready for successful action.

Let the inexperienced begin with only a few fruits of undoubted excellence, and enlarge their list as they enlarge their store of information, by experience, observation, reading, reflection, and intercourse with other cultivators. In this way there will be pleasure and profit in the pursuit, instead of loss and disappointment by a contrary course.

EVERGREENS FOR ORNAMENT.

In setting ornamental trees, evergreens are generally too much neglected, so that where we see beautiful scenery in summer, after the season of the "scar and yellow leaf," nothing remains but the monotonous scene of leafless trees, and the hoarse winds perform a dirge among the naked branches.

By interspersing evergreens among other trees for ornament, there is a greater variety and a more pleasing landscape in summer, and in the cold season, the scene is checkered with something fresh and lively, with dark-green foliage, beautifully contrasted with the white mantle that wraps the earth, breaking the sameness often seen in white snow, white houses, and white fences.

Boston Common, for want of evergreens, is robbed of all its beauty and splendor, when stern Winter lays his icy hand upon it. As some trees are decaying on that beautiful summer spot, we advise the trial of evergreens in their place; and the change of crops, by species so various, will give the advantage of rotation in favor of success.

One of the most beautiful of all evergreens is too much neglected. It is the hemlock, of a rich, dark green; and when its young shoots, of a lighter shade, start late in spring, they form a most pleasing contrast with the darker hue of a previous growth; and then it is the most beautiful of all evergreens. The hemlock flourishes on various soils, from wet swamps to the dry mountain top.

ENTOMOLOGY.

The science of entomology, or a knowledge of insects, is assuming an importance with the cultivator, as these little, yet powerful enemies are becoming numerous and destructive, especially on land long cultivated; and the greatest skill is necessary in order to war successfully against them. The first study is to learn their habits, that we may attack them in the most tender or exposed stage, or most convenient time.

Dr. Harris, now Librarian of Harvard University, Cambridge, has rendered essential service to the community, by his valuable treatise on "Insects Injurious to Vegetation," which is the best work of the kind published in this country.

The following extract from an address of Judge Darling, before the New Haven, (Ct.,) Agricultural and Horticultural Society, on "Injurious Insects," portrays, in a clear manner, the extensive operations of these formidable enemies:—

"The Author of our being, when he created our race, was pleased to give us 'dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every *creeping thing* that creepeth upon the earth.' We have been in a great degree successful in asserting our rightful dominion over all except those '*creeping things*,' the *insect* world. They as yet are in no respects our masters. We must have leave from them to enjoy even our persons, sleeping or waking, in comfort. Fighting for it from 'seed-time to harvest,' we may get 'food to eat and raiment to put on,' but we must feed and wear in all haste, or some insect will expose us to starvation and rags. We

sow and insects reap; and we content ourselves as well as we can with gleanings. Take for illustration the case of one of our most valuable fruits. We plant the seed of an apple. If some insect has not eaten out its substance, it springs up; but before it reaches the surface, a grub gnaws off its root. If it comes to the air, the cut-worm is ready to mow it down. If suffered to grow, the plant-louse sucks out its juices. As it increases in size, countless caterpillars, with names unknown to most of us, besides the bag-worm and canker-worm, names unhappily too familiar, devour its leaves; thus depriving it at once of food and breath. While the tree is thus devoured without, other insects bore out the wood within. But the tree blossoms, if an insect has not eaten the flower buds, and the fruit sets. The plum-weevil puts its new-moon mark upon the young apple, and it drops from the tree. What escapes the weevil, the apple-moth takes possession of for its offspring. We may have the apple, but we must take it with its disgusting inhabitant. Fortunate the farmer of this vicinity may be, the present season, if he obtains from a tree that should yield him ten barrels of fruit, ten fair apples. This is one sample of insect depredation. Time is not allowed me for particular reference to other cases. Your own sorrowful recollections of ruined crops, of fruits lost or made disgusting, of flowers despoiled of beauty, will supply ample reasons for regret, that we have failed so lamentably to obtain dominion over these '*creeping things*.'"

HOW TO RAISE THIRTY BUSHELS OF WHEAT PER ACRE

WHERE YOU COULD NOT RAISE TWENTY BEFORE.

EDS. CULTIVATOR: Where you have a good clover sod, let the clover grow until the first week in June; then take a good team and plough, and turn the clover all under; then roll the sod down flat, and let it lay eight or ten days; then take a light harrow or cultivator, and pulverize the ground fine, and about the 25th of June sow two and a half bushels of corn to the acre, and after harrowing it well, roll it down smooth. About the last week in August, take your roller and press the corn down as flat as possible, going round with the roller the same way you intend to plough the land; then plough the land as deep as possible, and turn all the corn under; follow with the roller, pressing all down flat. Thus you have two crops well mixed with the soil for manure.

Then take a light harrow or cultivator, and pulverize the ground fine, and sow your wheat about the middle of September; and if you do not have one-third more wheat than you do where you summer fallow, tell me I am mistaken in a cheap method of manuring land. The corn will grow so thick that it will keep every other plant down, and leave the ground clean, and if there are a few small leaves of the corn scratched up with the harrow, it will afford a good top dressing for the wheat.

AUBURN, Sept. 22, 1848. IRA HOPKINS.
— *Albany Cultivator*.

WARMTH OF THE SNOW BLANKET. — At the French Academy of Science, (March 14th, 1848,) M. Arago read a communication on the warmth imparted to the earth by a covering of snow, and respecting which there has hitherto been much skepticism. M. Arago stated that M. Boussingault had ascertained the truth of the theory beyond the possibility of doubt, during the past winter. He found that a thermometer plunged in snow to the depth of a decimetre, (about four inches,) sometimes marked five degrees of heat greater than at the surface. — *Medical Times*.

EXPERIMENTS ON POTATOES.

We have been familiar with this valuable root from our childhood, but the disease that has destroyed it to so great an extent, for a few years past, has induced us to collect many varieties, and cultivate them on the same land, managing them all in the same manner, to learn their comparative hardiness against the disease, as well as their quality, productiveness, &c.

In a trial of fifty varieties, we learn some important facts; but further experience is necessary to come to satisfactory conclusions on some points, for results vary from year to year. Last year the Peach Blows yielded more than the Long Reds; this year the latter were the most productive. In some cases we had the same potato from different sources, and the product, side by side, varied twenty-five per cent., showing a modification, by culture, soil, or other circumstances, that seem to produce a permanent effect on the seed, or planted tubers.

Some varieties rot much, others not any. Yet some of those that have not rotted with us, have been affected with others. We think no kind is perfectly exempt from disease, under predisposing causes, such as wet land, warm, wet weather, &c., though some are proof against it under favorable circumstances.

To have a wider range for selection and experiment, we have raised, the present season, new varieties from seed, which was collected from different sections, and was the product of potatoes from various parts of the world. So great was the variety, that in raising from about two hundred plants, nearly every one was distinct in appearance. This shows the effects of mixing many kinds together, and that potatoes will not generally produce the same from seed. In some cases we raised a quart from a single seed, planted the last of April, and some of the tubers were medial size, showing the great facility with which new kinds may be produced. More on this subject by and by.

COOKING FOOD FOR STOCK. — There is no doubt of the advantages, in one point of view, of the cooking of food for some animals: this point is, that the same quantity of food affords, when cooked, a larger portion of nutrition. But is there not still a doubt as to the advantages of a general adoption of the cooking mode of feeding? What is true and advantageous on a large scale, will not always answer on a small one: a dinner for one man each day will scarcely pay for fuel and the wages of the cook; but when a hundred, instead of one, sit down to dinner, it is a very different affair, and the tavern-keeper who would go behindhand in the one case, could afford to ride in his chaise in the other. Will not a similar rule apply well in cooking food for domestic animals? Most tempting accounts have appeared, from time to time, in the agricultural journals, of profitable undertakings in feeding large numbers of swine upon cooked food; but I have never met with much in a small way, upon a limited scale, that seemed worthy of imitating.

Swine are mentioned, because it is rather doubtful if much or any advantage is derived in cooking for neat cattle, milch cows, or for horses. Perhaps the experiments tended to leave the subject in great

doubt as regards all animals that chew the cud. The most decisive advantage is believed to have been found in cooking for swine. But why is it that our farmers have not more generally adopted it? It is not from the cause already adverted to, that expensive process may be true economy where a great deal of work is to be accomplished, but will not answer on a small scale. Any farmer can boil his small potatoes, and the meal also, to fatten his hogs at the beginning of winter, with the utensils in constant use all the year round in his family; but is it not questionable economy for him to go beyond this, and fit up an expensive boiling or steaming apparatus, to cook the food of his few swine? (And here it occurs to the mind, what should not be forgotten — never mix the meal with or use the water in which potatoes have been boiled, for the food of swine; for it is well known to be injurious, and to act as a medicine to scour, as it is termed.)

When, therefore, we see so often such laudable experiments and results in the cooking of food, urged for general adoption, does not the old adage occur, that we may be more nice than wise? — *Farmer's Visitor.*

KLOSS WINTER WHEAT.

A few years ago various seeds were received at the Cultivator office, from the Commissioner of Patents, which were distributed for experiment. Rufus M'Intire, Esq., of Parsonfield, Maine, is the only person who has reported on it. With him it has been very promising, and he made the following report after the last season's experience, which we copy from the Boston Cultivator. We should be pleased to hear something of its origin, and of its culture in other regions.

"My kloss white blue stem winter wheat passed through the winter perfectly safe, but suffered from rust and the worm. It was not sown last fall till I had taken off the corn crop late in September; thus it did not get up much before winter. I think, if sowed in August, it would have escaped the ravages of the worm, and possibly of the rust. A small patch sown early in September, where early potatoes grew, escaped the worm, and was but slightly injured by rust. I have an acre now up, and looking green and well, sown early, and half an acre sowed September 22; so I shall have another trial of it next year. The rust on wheat and potatoes struck this year unusually early. In common seasons, I think my winter wheat would have been out of the way of it. I have great confidence that this variety of wheat is sufficiently hardy to stand our severest winters. It is the same kind, successfully cultivated by Mr. Drew on the Kennebec. I obtained the first specimen of you from the patent office. Can you, or any of your readers, tell where it originated, or where it is cultivated?"

EXTRAORDINARY EFFECT OF OIL OF ANISEED UPON RATS. — It is a well-known fact that rats entertain an irresistible fondness for aniseed. A gentleman of the name of Bayley, residing in the Hampstead road, had occasion, a short time since, to take down a small bottle of essential oil of aniseed from a cupboard in his kitchen, which he accidentally let fall, and the bottle was broken and the contents escaped upon the floor. Before this accident, not a rat had for two years been seen upon the premises, but in a day or two afterwards they made their appearance; and at this time swarm to so great an extent that every effort to exterminate them has hitherto proved unavailing.

Domestic Department.

In the social circle woman ranks high, even in the ascendancy; and in the management of domestic affairs, in relation to the preservation and preparation of the various productions of the earth, committed to her care, and in the education of children, she has a station of equal importance assigned her. In vain the husband *provides*, if his helpmeet does not *prepare*. Her place in the culinary department is no less important, than his in the field, shop, office, or counting-room. Competency, nor even wealth, should excuse her from skill in domestic economy, and in its general superintendence, and a constant active part in training those under her charge in the way they should go.

WIVES OF WORKING MEN.—Speaking of the middle ranks of life, a good writer observed, "There we behold a woman in all her glory; not a doll to carry silks and jewels; not a puppet to be dandled by fops, an idol of profane adoration, revered to-day, discarded to-morrow; admired, but not respected; desired, but not esteemed; ruling by passion, not affection; imparting her weakness, not her constancy, to the sex which she should exalt; the source and mirror of vanity. We see her, as a wife, partaking the cares and guiding the labors of her husband, and by her domestic diligence spreading cheerfulness all around her; for his sake sharing the decent refinements of the world without being fond of them; placing all her joy, all her happiness, in the merited approbation of the man she loves. As a mother, we find her the affectionate, the ardent instructress of the children she has tended from their infancy; training them up to thought and virtue, to meditation and benevolence; addressing them as rational beings, and preparing them to become men and women in their turn.

THE FARMER'S DAUGHTER.—There's a world of buxom beauty flourishing in the shades of the country. Farm-houses are dangerous places. As you are thinking only of sheep or of curds, you may be shot through by a pair of bright eyes, and melted away in a bewitching smile that you never dreamt of till the mischief was done. In towns and theatres, and thronged assemblies of the rich and titled fair, you are on your guard; you know what you are exposed to, and put on your breastplate, and pass through the most deadly onslaught of beauty safe and sound. But in those sylvan retreats, dreaming of nightingales, and hearing only the lowing of oxen, you are taken by surprise. Out steps a fair creature—crosses a glade—leaps a stile. You start—you stand lost in wonder and astonished admiration! You take out your tablets to write a sonnet on the return of the Nymphs and Dryads to earth, when up comes John Thompkins, and says, "It's only the farmer's daughter." What! have farmers such daughters now-a-days? Yes, I tell you they have such daughters. Those farm-houses are dangerous places. Let no man with a poetical imagination, which is only another name for a very tender heart, flatter himself with fancies of the calm delights of the country; with the serene idea of sitting with the farmer in his old-fashioned chimney corner, and hearing him talk of corn and mutton; of joining him in the pensive pleasure of a pipe and a jug of brown October; of listening to the gossip of the comfortable farmer's wife, of the parson and his family, of his sermons, and his pig; over a fragrant cup of young

hyson, or rapt in the delicious luxuries of custards or whipped creams. In walks a fairy vision of wondrous witchery, and with a curtesy and a smile of winning and mysterious magic, takes her seat just opposite. It is the farmer's daughter, a living creature of eighteen; fair as the lily, fresh as May dew, rosy as the rose itself, graceful as the peacock perched on the pales there by the window, sweet as a posy of violets and clove gillivvers, modest as early morn, and amiable as your own imagination of Desdemona or Gertrude of Wyoming. You are lost. It's all over with you. I wouldn't give an empty filbert, or a frog-bitten strawberry, for your peace of mind, if that glittering creature be not as pitiful as she is fair. And that comes of going into the country, out of the way of vanity and temptation, and fancying farm-houses nice old-fashioned places of old-established contentment.—"*The Hall and the Hamlet*," by William Howitt.

PORK CHEESE.—Take the heads, tongues, and feet of young fresh pork, or any other pieces that are convenient. Having removed the skin, boil them till all the meat is quite tender, and can be easily stripped from the bones. Then chop it small, and season it with salt and black pepper to your taste, and if you choose, some beaten cloves. Add sage leaves and sweet majoram, mixed fine, or rubbed to powder. Mix the whole very well together with your hands. Put it into very deep pans, with straight sides, (the shape of a cheese;) press it down hard, and closely with a plate that will fit the pan; putting the under side of the plate next to the meat, and placing a heavy weight on it. In two or three days it will be fit for use, and you may turn it out of the pan. Send it to table cut in slices, and use mustard and vinegar with it. It is generally eaten at supper or breakfast.

TO CURE HAMS IN A CHEAP MANNER.—Lay your hams in tubs, if convenient, flesh side up; sprinkle salt on the fleshy part; let them drain twenty-four hours; then rub off the salt, and lay them in a large tub. Then prepare a brine by dissolving one pound of salt in one gallon of water, and to every six pounds of salt three and a half ounces of saltpetre. Make a sufficient quantity to cover the hams. Boil the brine, taking off the scum, and while boiling-hot pour it over the hams. Let them lie in the brine six weeks, then take them out, drain them, and smoke them.

Smoking hams is done as follows: Make a smoke with corn-cobs, if you have them—if not, with sound, hard wood, with damp sawdust thrown over the fire to prevent a blaze. Suspend your hams above this at a distance, to receive the most of the smoke. When they are a good brown color, which will be in about three weeks, they are smoked sufficiently.

They should then be dried. When dry, sew any kind of cotton cloth over them, and whitewash the outside; or if you have plenty of ashes in a dry place, cover the hams with paper, and bury them in ashes till wanted for use. This preserves them from bugs, and it is thought to improve their flavor.—*Emigrant's Hand-Book*.

COOKING CRANBERRIES.—To each quart of berries, very shortly after the cooking of them is commenced, add a teaspoonful of saleratus. This will so much neutralize the acidiferous juice which they contain, as to make it necessary to use only one fourth part as much sugar as would have been requisite had they been cooked without using saleratus.—*Mieh. Par.*

WESTPHALIA PLAN OF SMOKING HAMS. — A room in a garret; fire in the cellar; smoke gathered in a tunnel and led to the smoke rooms by a small pipe; by the time it gets there all the heaviest part of the pyroigneous acid has condensed, and the smoke has become cool. Nothing touches the hams but a pure, light, cool smoke, which is allowed to pass off by a number of small apertures, about as fast as it is supplied.

TO PURIFY HONEY. — Expose the honey to frost for three weeks, in a place where neither sun nor snow can reach it, and in a vessel of wood or other substance, which is not a good conductor of heat. The honey is not congealed, but becomes clear.

CLEANING SILK. — The following directions for cleaning silks are by one of the first Parisian dyers: Half a pound of soft soap, a teaspoonful of brandy, and a pint of gin; mix all together; with a sponge or flannel, spread the mixture on each side of the silk, without greasing it; wash it in two or three waters, and iron it on the wrong side; it will then look as good as new.

TRAINING OF CHILDREN. — The instruction of your children cannot commence too early. Every mother is capable of teaching her children obedience, humility, cleanliness, and propriety of behavior; and it is a delightful circumstance that the first instruction should thus be communicated by so tender a teacher. It is by combining affectionate gentleness in granting what is right, with judicious firmness in refusing what is improper, that the happiness of children is promoted, and that good and orderly habits are established. If children are early trained to be docile and obedient, the future task of guiding them aright will be comparatively easy. — *Nicholls.*

Boys' Department.

The boy is a man in miniature, fitting himself for the stage of action, on which he will soon perform his part in the great drama of life. How important, then, that he prepare to become a useful man, who shall be a blessing and ornament to society, and happy in the consciousness of deserving the approving plaudit of "Well done! good and faithful!"

Now, boys, if you will look back and count the years of your past short life, you will see that you will soon be men, and you must be prepared to act as men, or old Time will drag you along to the busy scenes of action, before you have learned the very A, B, C, of duty. In boyhood you will lay the foundation of your future character; then see that you build sure, that you may erect a structure that neither the winds nor storms of life can shake or undermine; that you may stand unmoved amidst the blast; and in the calm, enjoy the sunshine of life.

Your condition as men, your character as to intelligence and integrity, your elevation, or degradation, as it may be, all depend, in a great measure, on your own exertions. Others may instruct, guide, and advise, but the exertion is yours. None can act for you. Your friends can only act with you, to encourage and aid. But for you they cannot think

one single thought, nor form or carry out one resolution.

As you will soon take the place of your fathers, your position is so important that we devote a department to your particular interest; yet we advise you to read with care all other parts of the paper.

FARMERS' BOYS. — There is a wholesome change going on in public sentiment, which promises to do much for the improvement of the country, and the condition of the people. We mean the change which is taking place among the young in relation to the great work of tilling the soil. A few years ago, and the young men left their fathers' farms as soon as they could get away from them — and the fathers themselves not unfrequently encouraged them in it. A hard hand and a sunburnt face were deemed poor recommendations in life; and more genteel modes of getting a living were sought by the young. But they are beginning to look at the matter in a different light. The dull times through which we have passed, have opened their eyes to the fact, that after all there is nothing like a farmer to stand through all times, as they are quite content to stay at home. The result will be, that our farms will be to a very great extent better cultivated, and produce more — that large farms, which are not half cultivated, will be divided, and well husbanded — and that we shall have a large and virtuous population scattered all over our fertile hills. — *Nashua Tel.*

Health.

We think that a few plain directions, receipts, and hints, on this subject, will be useful to the reader. Health is not only essential to happiness, but to the despatch of labor and business. Every person should learn to judge what is necessary for his health, for he cannot, like Sancho Panza, have a physician constantly at his elbow to tell him how much and what to eat and drink, when to sleep, and when to wake, and when he is too hot or too cold; and as a man must learn these things, he may as well exercise a little more common sense, and judge of the importance of exercise, diet, bathing, pure air, comfort, rest, mental employment, &c., &c.

We would by no means intrude upon the province of the medical profession, but advise, in all difficult cases, a resort to the most skilful. But to preserve health is the grand object, and afford instant relief in case of accident, and sudden and violent attacks, when medical aid is not at hand, which may save life, or prevent a course of sickness. As "an ounce of prevention is worth a pound of cure," we advise particular attention to the former, as the most economical and pleasant. We shall be cautious about meddling with such dangerous instruments as mercury, arsenic, &c., which are proper only in hands highly skilled in their use; but we shall recommend such remedial means as are safe, and they are often among the most efficacious.

FOR CROUP OR QUINCY. — For a sudden attack of quincy or croup, bathe the neck with bear's grease, and pour it down the throat. A linen rag soaked in

sweet oil, butter, or lard, and sprinkled with yellow Scotch snuff, is said to have performed wonderful cures in cases of croup; it should be placed where the distress is greatest. Goose-grease, or any kind of oily grease, is as good as bear's oil.

Equal parts of camphor, spirits of wine, and harts-horn, well mixed, and rubbed upon the throat, is said to be good for the croup.

Severe cases of croup have been cured by the liberal application of cold water to the neck and breast, then rubbing with a coarse cloth, till a glow is produced.

METHOD OF PREVENTING COLD FEET AT BEDTIME.—

Draw off your stockings just before undressing, and rub your ankles and feet with your hand, as hard as you can bear the pressure, for five or ten minutes, and you will never have to complain of cold feet in bed. It is hardly conceivable what a pleasurable glow this diffuses. Frequent washing of the feet, and rubbing them thoroughly dry with cloth or flannel, is very useful.

THE SLIPPERY ELM.—One of the most valuable, as it is a well-known article in our country, is the Slippery Elm, (*Ulmus Fulva*.) All our apothecaries keep it, both the flower and the bark. It is generally called slippery elm, red elm, or rough-leaved elm. It is indigenous to our country, and what is remarkable, yet but little known, it contains a great amount of human nourishment; it is medicinal also. It is an excellent substitute for water, and you can carry in your waistcoat pocket sufficient to subsist upon for *ten days!* The shipwrecked sailor, the soldier in Mexico, and the traveller on the prairies, should never be without it. It always mitigates hunger, and is nourishment and drink. Let no ship go to sea without it, no traveller fail to have it with him, no army march without it.

Mechanics' Department, Arts, &c.

The mechanic, like the farmer, is a producer, and these are the two great classes which add wealth, comfort, and power to a nation. They are the main-spring that puts in motion and sustains the whole mechanism of society. Numerous other professions are also absolutely necessary for the well-being of the community, and form important component parts of the great machine which constitutes the body politic. All acting in harmony and unity, intimately blended, and depending on each other, complete the great social fabric.

The labor and ingenuity of the mechanic have made vast improvements in agriculture, by furnishing superior implements and machines, that not only lighten and expedite the labor of the cultivator, but give more thorough culture and better operations in almost every process.

The raw material of the farmer, in many respects, must receive the plastic hand of the mechanic, or artist, to give it currency and value. And his labors are not only in the line of utility, but they contribute largely to instruction, to improved taste, to elegance and refinement. Fine specimens of art are mute, yet eloquent teachers, often more impressive than the precepts and didactic instruction of the living.

The beautiful and accurate engraving on our ninth page, speaks more than tongue or pen can express, in regard to form, and with the touch of the artist's pencil, its colors would be more distinctly impressed on the mind than by the power of language.

Mechanics, as well as farmers, can learn by reading of the inventions, discoveries, and experience of others, and by observation beyond their own routine of action. Besides, most mechanics have a spot of earth which they delight to cultivate, promoting their health by exercise in the open air; therefore they will be pleased and instructed by other parts of this paper. Their families will share also in the pleasure and profit.

NEW INVENTIONS.—A new flax-breaking, scutching and hackling machine has been invented by a gentleman in St. Louis. The notice which we have seen of this machine, states, that the breaking is accomplished by means of solid, polished, cast iron rolls, ribbed in a peculiar serpentine form. Fine, spiral, brass hackles are attached to cylinders, by means of which the fibre is perfectly softened and thoroughly hackled, at the same time that the breaking and scutching is going on. By the use of this machine, two children can do the work of twelve or fifteen persons using common hand cleaners.

The soil and the climate of these North-Western States are peculiarly favorable to the growth of flax. By the process of preparing it for market, with the facilities offered by such a machine, and the application of steam to the proper rotting of the stalk, we may anticipate the time as not far distant when this article, flax, will be one of our most profitable agricultural productions. — *Iowa Farmer*.

THE MANNER OF SOLDERING FERRULES FOR TOOL-HANDLES, &c.—Take your ferrule, lap round the joining a small piece of brass-wire, then just wet the ferrule, scatter on the joining ground borax, put it on the end of a wire, hold it in the fire till the brass fuses. It will fill up the joining, and form a perfect solder. It may afterwards be turned in the lathe.

WATER-PROOF GLUE.—Soak common glue in cold water till it becomes completely soft without changing its form; then dissolve it in common warm linsed oil, and apply it as usual; it will dry quickly.

CELEBRATED FRENCH POLISH.—To one pint of spirits of wine add one and a half ounces of shellac, one quarter of an ounce of gum copal, and one quarter of an ounce of gum Arabic; all the gums to be bruised. Keep the vessel into which these are put well corked, and let it remain in a warm place for two or three days; then pour off the clear part into another bottle. Apply the polish to the end of a rubber, made by rolling up a piece of firm muslin very firmly, fastened to a stick or skewer, and covered with a firm cotton cloth, perfectly free from lint or dust, and just moistened with a very small quantity of cold drawn linsed oil; use the rubber briskly, with a moderate pressure, in a circular direction, over a space of about a square foot at a time, and replenish both as the wood dries. Go over the whole surface in this manner, and give three or four coats, according to the grain of the wood. The operation must be performed in a place of moderate warmth. Gradually clear off the oil from the surface with the polish, and sometimes turn the rag, otherwise the brightness will not be perfect.

This polish imparts a superior brilliancy and clear-

ness, is not easily scratched, and is not affected by any moderate degree of heat. It is not injured by soap, and therefore can readily be cleaned by washing with soap and water. — *Mechanic's Note-Book.*

A French scientific journal states that the ordinary rate, per second, of a man walking, is 4 feet; of a good horse in harness, 14; of a reindeer in a sledge on the ice, 16; of an English race-horse, 43; of a hare, 88; of a good sailing ship, 14; of the wind, 82; of sound, 1033; of a twenty-four pounder cannon ball, 1300; and of the air, which so divided returns into space, 13,000 feet.

A man of science in his closet can do greater things than a general at the head of an army, or a despot with the physical power of a whole nation at his command.

ACKNOWLEDGMENTS.

As we have been an ex-editor for a short time, the favors of our kind friends have so accumulated, that we cannot in one number take room to do justice to them; and yet some fruits, intended for us, did not reach their place of destination.

PEARS, of various kinds, and superior specimens, of Mr. Henry Vandyne, Cambridgeport.

MERRIAM PEACH. This is a new variety, and very promising, from Benjamin Merriam, Roxbury. It is extremely large, — one weighed half a pound, — roundish, slightly oval; suture on one side; pale yellow, bright red blush; flesh, yellowish, red at the core, juicy, of a rich, sweet, luscious flavor. Early in October. The tree very luxuriant. Some leaves nine and a half inches long.

GRAVENSTEIN APPLE, of Messrs. S. and G. Hyde, Newton. This is one of the finest apples for the dessert and cooking, but, like the Porter, another valuable kind, it comes in during an abundance of peaches, plums, and fine pears. September and into October.

HUBBARDSTON NONSUCH, from the same. One of the best and most profitable apples. It is very salable.

HURLBUT APPLE, from Mr. S. Hurlbut, (of the firm of S. and L. Hurlbut, Winchester Centre, Ct., distinguished as raisers of fine Devon cattle,) a barrel of this fine fruit. It is rather large; flattish-conical; yellowish-green, mostly covered with bright red, striped with crimson, russet around the stem; flesh tender, crisp, juicy, of a mild, rich, highly aromatic flavor. One of the very best, and very beautiful. Last of October and into January. We find it to be an excellent grower in the nursery.

THOMPSON APPLE, of Mr. Simon Gates, raised by his father, Mr. Levi Gates, Mercer, Me. This is a good fruit, but too far gone for an accurate decision. Very large and showy, being fair and of a bright red color.

HEALEY APPLE, of Mr. Samuel Healey, East Weymouth. Large, fair, beautiful, of an excellent quality. It partakes of both the fruit of the scion and the stock. This is the case with many fruits.

NATIVE GRAPES, from Colonel Lebbeus Chase, Cornish, N. H. Early Isabella and Nizola grapes, more spirited and higher flavored than Isabella, but not so sweet. As they are early, they are well worthy of cultivation, particularly in the north. We have, in our nursery, from Colonel C., the strawberry grape, tart and pleasant, and Coon grape, sweet and good. Both are early, great growers, and they endured the last winter, which was a very trying one, perfectly well. Our worthy friend has done much in this line, for the good of the community. We are making experiments on his various kinds, and hope to rear lasting monuments to his memory.

BULL-NOSE PEPPER. This uncouth name is given to the most splendid variety of peppers that we ever saw. We have some fine specimens from Mr. John Hill, No. 101 Fancuil Hall Market. Over four inches in length, and ten inches in circumference; the color is a brilliant red. It is used for the same purposes as the squash, and common red peppers.

QUINCES. From Mr. Robert Manning, of the Pomological Garden, Salem, three distinct kinds of quinces; the pear-shaped, largest at the top or blossom end; the apple-shaped, largest at the base or stem end; and the Portugal, largest in the centre.

PORTSMOUTH SWEETING, of Dr. Rufus Kittredge, Portsmouth, N. H. This apple is large, very handsome, excellent for baking, but as they have ripened prematurely, being a winter apple, we cannot judge of their dessert properties.

ADAMS PEAR, of Mr. W. W. Baxter, Quincy. Rather small, but of a good quality, and worthy of cultivation, as it is a hardy native, and a great bearer. We advise its trial in the north, where most foreign kinds fail.

M'LAUGHLIN PEAR, of Mr. Ebenezer Brown, Lynn. It has not yet ripened to perfection. We noticed this fruit while growing in Mr. B.'s garden, and its appearance was very promising. It is a hardy native of Maine.

ISABELLA GRAPES, of excellent quality, of Mr. S. A. Godbold, Chelsea, who, owing to a warm location and skilful management, gets fine Isabellas almost every year, while a great many often fail.

NOTICES OF PUBLICATIONS.

SCIENTIFIC AGRICULTURE, or the Elements of Chemistry, Geology, Botany, and Meteorology, applied to Practical Agriculture; by M. M. Rodgers, M. D., Author of *Agricultural Chemistry, &c., &c.* 12mo. 280 pages. Published by Erastus Darrow, Rochester, N. Y. Sold also by J. P. Jewett and Co., 23 Cornhill, Boston.

The subjects of this work are of the highest importance in agriculture; and from a cursory perusal we think the arrangement is excellent, and that the author has ably performed the difficult task of rendering science easy to the practical farmer. At another time we will give specimens of the work.

THE PLOUGH, LOOM, AND ANVIL. A monthly octavo, at three dollars a year, by J. S. Skinner and

Son, Philadelphia. Mr. S. is well known as an able and veteran editor. The history and condition of agriculture, its claims to encouragement by government, and the rights and privileges of farmers, are important subjects in this work, and we are pleased that they are in hands so skilful.

THE LANDLORD AND TENANT. — RIGHTS OF SEAMEN. — SHIPPERS AND CARRIERS' ASSISTANT. — These highly valuable works, which contain, in a condensed form, at a trifling cost, and in a style available to any common capacity, more than can be found on the same subjects in huge volumes, at an enormous expense, and difficult to collect, collate, and digest. One of these little works will often save a fee of five dollars for advice, and, by directing to a judicious course of management, it will often save hundreds of dollars in property, or a still larger sum in vexatious litigation. By I. R. Butts, No. 2 School Street.

THE MAGAZINE OF HORTICULTURE, for November, is at hand. This work, by C. M. Hovey, is conducted with distinguished ability. The editor is an original genius, and he furnishes a large share of valuable matter, in which many new and excellent fruits are described with great accuracy; he is also equally skilled in floriculture.

THE HORTICULTURIST, for November, is before us. The editor, A. J. Downing, is eminent for his labors in horticulture, landscape gardening, and rural architecture; and this work is replete with interest and valuable instruction.

ADDRESS BEFORE THE MIDDLESEX AGRICULTURAL SOCIETY, by Hon. J. C. Gray. An able, interesting, and sensible discourse, by one who takes a deep interest in agriculture, and zealously labors to promote it.

CATALOGUE OF WASEMEQUIA NURSERY, New Bedford, Henry H. Crapo, proprietor, containing a descriptive list of an extensive assortment of fruit trees, also ornamental trees, shrubs, &c.

WEBSTER'S DICTIONARY. We call particular attention to the advertisement of this invaluable standard. In previous works there has been a vagueness in definitions, so that it was impossible to learn the true meaning of words by a dictionary. This deficiency is admirably supplied by Webster, who defines definitely, and with great accuracy and perspicuity. He has accomplished the grand desideratum of furnishing a work that is readily acknowledged a *Standard of the English Language*, and it well deserves that high distinction. It will remain a monument of laborious genius and profound erudition, and a distinguished landmark for future ages.

THE MASS. HORTICULTURAL SOCIETY,

During the warm season, hold public exhibitions every Saturday, in their splendid hall, where the extensive tables and stands are usually well filled with fruits and flowers, and the spacious room crowded with members and visitors. In the cold season, meetings are held in the library room, where fruits are shown, and tested by the committee.

This association possesses ample means, and it

annually distributes large sums in liberal premiums and gratuities, and in making valuable additions to the library. In zeal and intelligence, and in efficiency in the cause of horticultural improvement, it is not excelled by any institution in this great country, nor in the still wider world. All Europe, many other distant regions, and our own extensive continent, are ransacked for superior fruits and vegetables, which are here fairly tested in our natural climate, or in the torrid zone of a hot house.

OUR ENGRAVINGS are drawn and completed by Mr. S. E. Brown, 120 Washington Street, whom we recommend as a skilful artist.

THE SONG OF TOIL.

BY AUGUSTINE J. H. DUGANNE.

Let him who will rehearse the song
Of gentle love and bright romance;
Let him who will, with tripping tongue,
Lead gleaming thoughts to fancy's dance;
But let *me* strike mine iron harp,
As northern harps were struck of old —
And let its music, stern and sharp,
Arouse the free and bold!

My hand that iron harp shall sweep,
Till from each stroke new strains recoil,
And forth the sounding echoes leap,
To join the arousing song of toil;
Till men of thought their thoughts outspoke,
And thoughts awake in kindred mind,
And stirring words shall arm the weak,
And fetters cease to bind!

And coursing, soon, o'er soul and sense,
That glorious harp, whose iron strings
Are Labor's mighty instruments,
Shall shake the thrones of mortal kings;
And ring of axe and anvil note,
And rush of plough through yielding soil,
And laboring engine's vocal throat,
Shall swell the Song of Toil!

OLDEN TIMES IN MASSACHUSETTS. — In 1627, there were but thirty-seven ploughs in all Massachusetts, and the use of these agricultural implements was not familiar to all the planters. From the annals of Salem it appears, in that year, it was agreed by the town to grant Richard Hutchinson twenty acres of land, in addition to his share, on condition "he set up ploughing." — *Nat. Teigs*.

THE OLIO.

Nothing annoys an enemy so much as kindness. It is an arrow that generally hits the mark.

A tailor, who, in skating, fell through the ice, declared that he would never again leave his *hot goose* for a *cold duck*.

OUR NATIVE SOIL. — The farmer's capital, which can never be *turned* without *profit*.

Princes and lords may flourish or may fade;
A breath can make them, as a breath has made;
But a bold yeomanry, their country's pride,
When once destroyed, can never be supplied.

GOLD DIGGING. — The best tools in the business, a *plough* and a *hoe* — the best place to seek for it, *above ground*.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, JANUARY 6, 1849.

NO. 2.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

RECEPTION OF THE NEW ENGLAND FARMER.

WE have the satisfaction of finding that the New England Farmer is meeting with a most cordial reception. Our numerous friends whom we see, and many others at a distance, from whom we have the pleasure of hearing, express their hearty approval of the work in its form, matter, and neatness of execution, and we are obliged to many, not only for their kind wishes and patronage, but for their liberal aid in its circulation.

We copy the following remarks from the president of the Essex Agricultural Society, particularly for the valuable hints they contain in regard to communications, though thus far our correspondents have been brief. As to the small size of our page, the deficiency is made up by the greater number.

To the Editor and Publisher of the New England Farmer.

GENTLEMEN: I am happy in the receipt of a paper under this name. The well-earned reputation of a paper so ably conducted as was your predecessor under the same name, by Fessenden and others, cannot fail to be a favorable introduction. The form you have chosen is much better calculated to give it permanency than a larger page, and makes it more easily read. If it is objected that it will not contain so much matter as the other forms, let those who offer such objections, take care to divest their communications of all superfluous words, and you will have no difficulty in finding space for them. It has become too common among writers on agricultural subjects, to forward to the press their productions as soon as they are *threshed*, before they are *winnowed*. With my best wishes for the success of your enterprise,

I am, very respectfully, your obedient servant,

J. W. PROCTOR.

DANVERS, Dec. 14, 1848.

PRUNING GRAPE-VINES.

The best time for pruning grape-vines is late in autumn, after the fall of the leaf. If neglected then, the sooner it is done the better; for if done late in winter, or in spring before the leaves put out, the vines are liable to bleed. Sometimes, when they are pruned early in winter, and there is steady cold weather till spring, so that the ends of the vines do

not become dry, they will bleed as warm weather comes on in spring, the same as vines cut at that season.

If vines are rather tender, — as is the case with the best kinds cultivated in New England, — it is best to prune partially in fall, leaving twice as much new wood as is needed, and finish the operation in spring, when the leaves have started, as then the life of the vine may be seen, and the vines will not bleed after the plant is in foliage.

CARE OF CATTLE.

Cattle should be kept warm and comfortable in winter, else far more food will be necessary; and then they will be less profitable, than when kept in a comfortable condition. The whole barn should be made tight and warm, and there should be no partition between the cattle and the large, open space called the barn floor; or there should be no obstruction directly before the heads of the cattle, whether standing or lying, that they may breathe the pure air. Rails, or bars, in front, will be sufficient.

Many of the best managers of stock have barns so warm that water will not freeze in them in the coldest weather. The open space in front of the cattle gives a good chance for pure air. In warm, dull weather, in winter, it is necessary to open doors, at some distance from the animals, that a draft of air may pass through the barn floor, yet not blow directly on the cattle.

If a cattle house be made close, with a partition in front, the steam and gases arising from the manure, and the breath of the animals, will produce foul air, and create disorders.

MAPLE SUGAR. — A good man will make six or seven hundred pounds in three weeks. The man that took the premium at Auburn in 1843, kept all vessels clean. He run the hot sugar into conical vessels, having a half inch hole, plugged at bottom, until the sugar was thoroughly hard; then put three layers of woollen cloth on top, and poured on a pint of water every morning for three weeks in succession. The water looked like brown molasses, and the sugar, when done, like leaf sugar.

SCIENCE IN AGRICULTURE.

The various sciences that aid agriculture are comparatively new, and their application to this department of industry is still more recent; yet they have already thrown much light on various subjects, and have clearly explained what before seemed as mysteries, enabling the farmer to act understandingly, by using the proper means to accomplish desirable purposes. The following articles illustrate our proposition:—

BONE DISORDER IN COWS.—Some years ago, in the great dairy district of Cheshire, England, the cows failed from a waste, or falling in of the bones; and able chemists were called on to explain the cause. On analysis, they found that milk contained a quantity of phosphate of lime, or bone earth, and that the same substance formed a large portion of the material of bones. They also discovered that old lands became exhausted of phosphate of lime, and that common stable manures did not sufficiently supply the deficiency. A cow, fed on an acre of land, for seventy-five years, would carry off, in her milk, one ton of phosphate of lime.

As this material became exhausted, the land produced plants that contained but a small portion only; and that being appropriated mostly to the production of milk, the animal had not a supply to repair the natural waste of her bones; hence she failed, having what is now called the *bone disorder*. As a remedy, bone meal and dissolved bones were given; and as a preventive, bone manure was applied to the land, and then it produced plants for fodder that abounded in phosphate of lime. With a renovation of the land, the disease disappeared.

Many farmers have seen their milch cows attempting to eat bones, without being aware of the cause; and since this subject has been better understood, bone meal is kept at agricultural stores, as a medicine for cows that feed on old lands and become afflicted with the bone disorder.

The English have become well skilled in this subject, and they import a vast amount of bones from the continent of Europe, even from the battle-grounds; and they also import largely from this country, and from those very cities around which the lands are old, and becoming barren for want of the very material for manure which is exported to foreign lands; and only a few years since, some of the produce of this manure was imported into this country, to supply a lack occasioned for want of intelligence and energy in agricultural pursuits. But we are now learning on this, as well as other subjects, and improvements follow. When proper machinery is in operation for grinding bones, or the process of decomposition by acids and alkalies, this valuable manure will be used exclusively to enrich our own lands, and aid in filling our own granaries, and keeping our animals in healthy condition without resort to medicines.

The following analyses show that bones are composed largely of the phosphate of lime, and that the same ingredient is a component part of milk, and

though but small, daily, it amounts to a large quantity in the course of a year, as twenty gallons of milk contain an ounce of phosphate of lime.

Composition of Bones.

Organic animal matter, (gelatine),	33½
Phosphate of lime,	55½
Phosphate of magnesia,	3
Carbonate of lime,	3½
Soda and common salt,	3½
Chloride of calcium,	1
	100

Some analyses show thirty-eight parts of phosphate of lime, and ten parts of carbonate of lime, in bones.

Composition of Milk.

Water,	873
Butter,	30
Caseine,	48.20
Milk sugar,	43.90
Phosphate of lime,	2.31
“ magnesia,42
“ iron,07
Chloride of potassium,	1.44
“ sodium,24
Soda in combination with caseine,42
	1000

ANALYSIS OF INDIAN CORN.—Dr. Playfair has recently analyzed specimens of corn of American growth, and finds its composition as follows:—

In 100 parts—

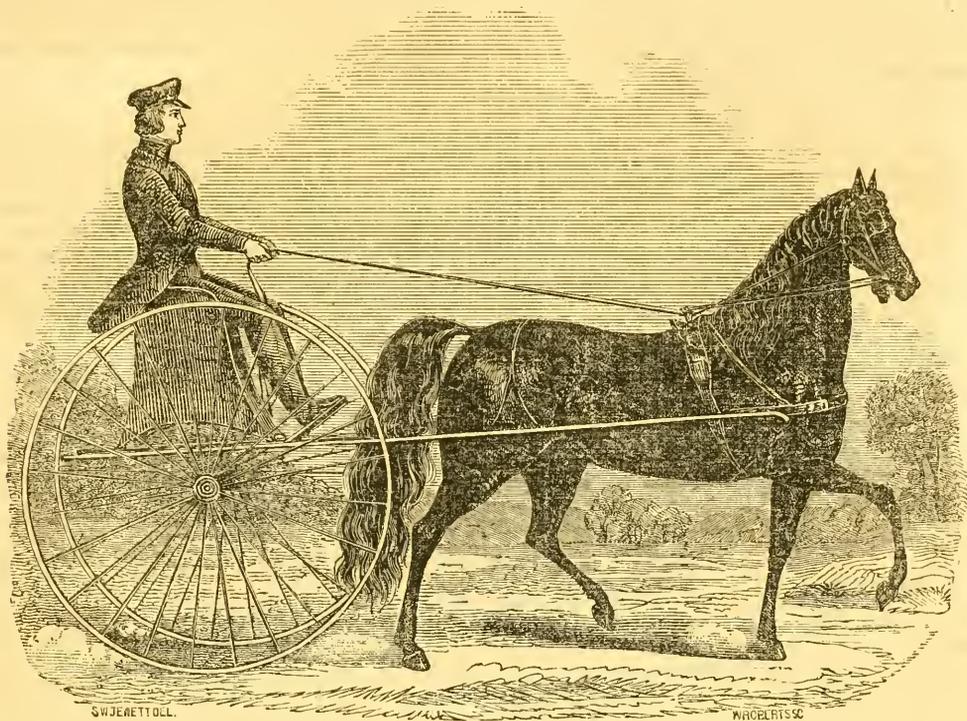
Protein, (nutritive matter,)	7
Fatty matter,	5
Starch,	76
Water,	12
	100

One pound of Indian meal will absorb five pints of water, in making it into mush or pudding, and when sufficiently boiled, the mush will weigh four and a half pounds.

It will be seen from this analysis, that corn contains less protein, or nutritive matter, than wheat, oats, or barley, but more than either rice or potatoes. It contains, in fact, three and a half times the quantity of nutritive matter that is found in potatoes, and a very much larger quantity of starch, and less water. It also possesses more fatty matter than any of those, which is an important consideration, where the mere fattening of animals is the object. It will be thus found, as an article of diet, both for man and beast, superior to potatoes, and rice, but inferior to wheat, oats, and barley.—*London Gard. Chronicle.*

SECURITY OF CELLARS.

This subject is often neglected. By saving a few dollars of labor, sometimes only a few dimes, hundreds of dollars are lost by the freezing of roots, fruit, &c. A few mild winters lull people into negligence; then comes a real freezer, and Jack Frost walks into the cellar, and takes possession of every tender article. In the spring, after a very cold winter, we often hear of farmers losing two or three, and some five or six hundred, bushels of potatoes. Sometimes the loss would far more than pay for making a frost-tight cellar, that would last for ages. The only safe way is to prepare for the worst, so as to defy the greatest degree of cold that is wont to occur.



“BLACK HAWK.”

For the New England Farmer.

S. W. COLE. Sir: The cut above was designed to show the figure of the stallion and trotting horse, “Black Hawk,” which was sired by the old “Sherman Morgan” horse; and has stood for the improvement of stock at Bridport, Vermont, for the last four years. He is owned by N. H. Hill, Esq., of Boston, Mass., who purchased him of Benjamin Thurston, Esq., of Lowell, Mass. While in Mr. Thurston’s possession, Black Hawk frequently appeared at the Cambridge Trotting Course, and won several purses, varying from two hundred to one thousand dollars.

Last year, at the New York State Show and Fair, held at Saratoga Springs, he trotted against “Morse’s Gray,” one mile and repeat, and won with ease, without any training. The first heat he performed in two minutes fifty-two seconds, the second in two minutes forty-three seconds. He has trotted a mile in less time, but was never used expressly for the turf. He has trotted ten miles at two heats, in thirty-two minutes and thirty seconds.

Three seasons ago, his services for the improvement of stock amounted to eighteen hundred dollars, at ten dollars for each foal. This season they have amounted to over two thousand dollars.

Black Hawk is of a jet black color; fifteen hands high; thirteen years old; perfectly sound; and weighs 1024 pounds; is celebrated for symmetry, action, docility, endurance, loftiness in carriage, great speed, and for the improvement of stock. His colts show evident signs of the “Morgan” blood, attaining good size—stand low for their weight—have great action and spirit—are very playful and mild, with heavy, waving manes and tails, and they sell at remunerating prices. A three year old stallion, which he sired, was sold last month for eleven hundred and twenty-five dollars.

Black Hawk has a wide, clean, sinewy leg; short from the knee to the pastern; short back; deep in the brisket; eyes bright, lively, and prominent; open under the jaws; a lean head, face a little dishing; open nostrils, small, delicate muzzle; teeth and countenance savage; action high, proud, and graceful, moving boldly in harness; combining, in every respect, strength and beauty, and evincing courage and power from the hind fetlock to the tip of the ear.

The Morgan horses are so well known in Boston and vicinity, that they need no praise or description. They are acknowledged to be the perfect “Yankee harness horse.”

Very respectfully yours,

SOLOMON W. JEWETT

WEYBRIDGE, VT., Nov. 22, 1848.

To the Editor of the New England Farmer.

FOREST TREES.

Sir: I am frequently inquired of as to the best method of getting forest trees from England, and it has occurred to me, that it may advance the cause of forest culture to show how this can be done with economy and certainty. Both Hovey & Co. and the Winships will import trees, in large or small quantities, to order; probably most of our nursery men are in the habit of doing so; for which you pay them a reasonable commission. Another mode is, to order them directly for yourself. This you can do, remitting a sight bill for such an amount as you may wish to invest in trees to some established nurseryman, and you are very certain of having an order, so accompanied, attended to promptly and honestly. By knowing about the price of the trees in England,

you can calculate very nearly how many of each kind of tree a certain sum will produce, I herewith send a list of prices for *transplanted* forest trees of the kinds most usually wanted. Seedling trees are about half price, perhaps less.

English Ash, 1½ to 2 feet high,	per 1000,	\$3 00
“ “ 3 feet	“ “	4 00
“ “ 4 “	“ “	5 00
Mountain Ash, for each grade,	\$1 per 1000 higher.	
Beech, 2 to 2½ feet,	per 1000,	\$4 00
“ 2½ to 3 “	“ “	5 00
Birch, 1½ to 2 “	“ “	3 00
Scotch Fir, 1 year transplanted,	“ “	1 50
“ “ 2 “	“ “	2 50
Norway Spruce, 9 to 12 inches,	“ “	3 25
“ “ 12 to 15 “	“ “	5 00
“ “ 15 to 18 “	“ “	6 25
Larch, 1 yr. transplanted, 15 in.	“ “	1 50
“ 1 “ “ 15 to 18 in.	“ “	2 25
“ 2 “ “ 2 feet	“ “	3 25
English Oaks, 1½ to 2 feet	“ “	5 00
“ “ 2 to 2½ “	“ “	6 25
“ “ 2½ to 3 “	“ “	7 50
Turkey Oaks, one dollar higher than the above.		
Austrian Pine, a valuable shady tree, one year transplanted, per 1000,		6 50
Sycamore, 2½ to 3 feet,		3 50

I have selected from a long price-current the kind of trees most usually wanted, all of which thrive well in New England. They are the wholesale prices taken by the hundred or thousand from the nursery of William Skirving, of Liverpool, from whom I import all my trees. I have merely changed the currency from sterling to American. Now, we will suppose, that a person in the country who has no foreign correspondent, wishes to plant a piece of ground with larches, oaks, or other trees; he knows about the number he will require; he has then only to make out the list, compute the cost, purchase of Harnden & Co., or some other respectable exchange dealer, a bill of exchange for the amount, enclose it with the order to William Skirving, of Liverpool, and he will ship them on board of some vessel bound to Boston at a proper season and in a proper manner, advising him of the same by steamer. I mention Mr. Skirving, because he is the only one whose name I now recollect, and because, from my dealings with him, I know that the utmost reliance can be placed upon him. It is an advantage, also, to have the nursery near the place of shipment, as there is less liability to accident and delay. In making up an order, a few dollars had better be added for expenses of shipment, in which case there will be nothing to pay on arrival but the freight. R. S. F.

December 20, 1848.

EDITORIAL REMARKS.

The above communication contains highly valuable information to those who would import forest trees, and are unacquainted with foreign nursery men. Mr. Skirving sustains a good reputation, and we take the liberty to say that the above initials indicate the name of Richard S. Fay, Esq., of Lynn, who has shown his deep interest in the cultivation of forest trees by liberal offers to the Essex Agricultural Society for the encouragement of this important department of agriculture. His donations for ten years, provided there are ten competitors for the premiums, will amount to the very liberal sum of *one thousand dollars*. A vast amount of good will result from this offer, as it will give an impetus to the business, not only in that county, but throughout

the barren wastes of New England, from the favorable examples, and the information generally diffused.

In the first settlement of this country, there was no cautionary voice of,

“ Axeman, spare that tree,”

but the blows were dealt thick and fast, at random or with injudicious design; and the consequence is, naked hills, bleak and barren plains, and a scarcity of fuel and timber. But with intelligence and energy in the renovation of forests, the short space of only ten or twelve years, will present a fair promise for the future, and the waste places will be adorned with living monuments to the memory of those who encourage their production.

For the *New England Farmer*.

CULTIVATION OF FRUIT.

MR. EDITOR: Every man owning a lot, however small, should embrace the earliest opportunity to plant apples, pears, plums, cherries, grapes, &c., carefully selected for their rich qualities and productiveness. They are sources of pleasure and profit too; they are healthful necessities of life, and they are luxuries within the reach of all. Who does not admire that beautiful figurative expression of “sitting under our own vine and fig-tree”? Who does not feel grateful to his Creator, for the blessings of life, as he walks out at morning, noon, or eve, with his better half, and their loving prattlers, to view the blooming trees, planted by his own hand, inhaling the rich fragrance of their flowers or fruit? A happy home with these attractions will rarely be abandoned for the foul haunts of the drunkard, gambler, or libertine.

It is no less a matter of surprise than regret, that comforts so necessary and easily attained, should be so long deferred by many, and never sought by others. A row of fruit trees around a garden is in good taste, and produces much fruit, is little or no encumbrance to the lot, and the only means of obtaining a product from the rich soil beneath your wall. The young farmer should never wait to clear all obstructions to the plough, and make his soil rich by tilling before he can set an apple, cherry, or plum tree. Injudicious tilling will spoil an orchard. My neighbor has ruined a once thrifty orchard, by cropping it with *wheat*. The soil is yet rich, but his trees are in the yellow leaf at *midsummer*, do not bear, and, in fine, are dying. A part of the same orchard that was fenced into the highway, has had no manuring, cropping, or care, and that part is vigorous and bearing.

Fine trees are reared on granite soils, too rock-bound ever to be tilled. Horned cattle should never be allowed in a young orchard. Hogs, and even sheep, will soften the turf, and facilitate the growth of trees, if not allowed to rub against them. To prevent this, set firmly in the ground three substantial stakes, of durable wood; to these firmly nail your boards, and form a substantial triangular fence around each tree, from one to two feet from its trunk.

The best method of manuring, where land is not tilled, and no animals admitted, is to cart, once in three years, flags, rushes, leaves, rotten wood, or any worthless trash, to kill the grass sod, and retain the moisture. Spread it from four to eight feet from the tree, according to size. When you have located permanent walls and division fences, plant a row by each. It is the best location for a rapid growth, an ornament to your farm, and sufficient orchard without encumbering tillage. If their first fruits prove crabbed and worthless, graft with such as you know

to be good bearers and valuable fruit, never cutting your limbs too near the trunk to make your top too thick and wounds too large.

JESSE SMART.

TROY, ME., Dec. 1848.

EDITORIAL REMARKS.

We have numerous instances of grain crops being very injurious to orchards. Root crops may be cultivated to advantage among trees; these keep the ground light and mellow, and lead to deep and thorough tillage. The ripened grain doubtless exhausts the soil of some ingredients that are essential to the trees or fruit.

For the *New England Farmer*.

POTATO DISEASE.

MR. EDITOR: There is no topic, moral, religious, or political, that has been so thoroughly discussed, without arriving at any satisfactory result, as the potato disease. For years our agricultural journals have teemed with discoveries of cause and cure, and all the remedies, like those of the patent nostrums of the day. "Strike at the root of the disease,—Remove all impure humors and restore health."

And yet a strict adherence to the rules laid down, (and which it is said were a sovereign remedy the last season,) are a total failure this.—The "rot" continues. One writer avers it is atmospherical influence, caused by the extreme dry and warm weather. The next season is the reverse—extremely wet and cold: a new discovery is made, that it is occasioned "by the extraordinary humidity, combined with a peculiar state of the atmosphere." Some theorists attribute the disease to flies, or other insects. Others aver that the real cause of the evil is "a fungus or mushroom of extreme tenuity that breeds amazingly and reproduces itself by thousands." Some have found a remedy in planting unripe tubers, or in renewing from the seed; others, in the use of plaster, salt, lime, and ashes, have saved or destroyed their crops. Mowing the tops when in blossom has stayed the destroyer, at the expense of the crops. But these visionary theories are exploded. Each succeeding year finds us as much in the dark as ever. In 1847, the early-planted and harvested potatoes escaped the rot; the long reds and late potatoes were nearly a total loss. In 1848, the case is reversed: the earliest planted and earliest harvested are the most affected, whilst the long reds and other late varieties have universally escaped—showing conclusively, that no general rule can be safely adopted in the cultivation of potatoes, to avoid the rot.

All this strengthens our belief in the position we adopted some two years ago—that the cause and grand panacea had not and never would be discovered. It is as inexplicable as the cause and spread of the Asiatic cholera, and must ever be equally problematical; yet we think the disease is on the decline, and will in a few years cease to exist. Under these impressions, our advice for the future is, plant just as many potatoes as you would if the disease had never appeared, manure them in the same manner, cultivate them in the same way, entirely regardless of the delusive speculative theories of the thousand and one writers who have discovered so many sovereign remedies, which are just about as valuable as a last year's almanac. C.

PEMBROKE, Dec. 1848.

EDITORIAL REMARKS.

Our correspondent is perfectly correct as to his general views and conclusions about the cause of, and remedy for, the potato rot; yet, notwith-

standing all have failed to show the true cause, and assign a sovereign remedy, much light has been thrown on the subject, which greatly aids the cultivator. Many causes assigned are predisposing causes, and some remedies recommended are partial remedies or preventives.

Wet lands and unfermented animal manures are predisposing causes that may be avoided, and this is the case with other conditions or circumstances that have an unfavorable influence. Salt, plaster, lime, charcoal powder, and other specifics that have been recommended as remedies, though not sovereign, often serve a valuable purpose as partial preventives.

Although early planting is not a sure guard against the rot, yet it is measurably so, as in numerous experiments, and on an average of years, early planted potatoes, or those that are early by nature, are less affected than late planted, or late varieties.

Early digging will not always save potatoes from this malady; yet it often lessens its effects, particularly when we have warm, heavy rains in the fall.

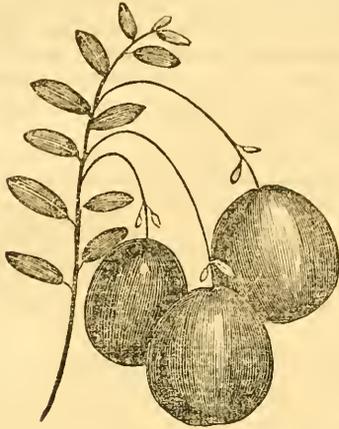
A few months ago, we stated that the best and cheapest remedy (partial remedy, it should be called) was the cultivation of hardy kinds, that were not liable, or not very liable, to rot; for every cultivator is aware that there is a great difference in different varieties. When we dug fifty kinds in September, that were planted for experiments, which was rather early, before many rotted, one kind, the Stockbridge, a new variety, very large and beautiful, had rotted more than all the other kinds.

PRESERVING SWEET POTATOES.

We copy from the *Southern Cultivator* an article on this subject, and though the mode of preservation may be good in a mild climate, a log cabin would not be sufficient protection in a cold region; yet the method of preventing decay may be good in all climates, and when further protection is necessary against the cold, it may be effected by covering with hay or litter.

Last year I used a log cabin, unchinked, with dirt floor, to save my sweet potatoes and plants. There was a good lock on the door, and I lost none either by rot or appropriation. Having gathered a large quantity of pine straw and leaves from the forest, I spread it down about six inches thick on the floor, and then spread down potatoes a foot or more deep, over this another layer of straw, and so on alternately, until the potatoes were all housed. They kept perfectly sound, and better than any I have ever put up. The lock secured them from thieves. If S. will try this plan, I think he will succeed. I believe that they cannot be kept in a cellar. I have tried it, and failed; also tried double log cabin with inter-filling of sand, and failed. It was too close; they must have air, be kept dry and dark; the pine straw absorbs any extra moisture in the heap.

BONES.—That world-renowned chemist, Liebig, says that a single pound of bone dust contains as much phosphoric acid as one hundred pounds of wheat. From this we can easily perceive that there are bones wasted on every farm in this state sufficient to manure the entire wheat crop. This, to many, will doubtless appear strange, but is nevertheless true.



THE CRANBERRY.

Much has been written on the cultivation of the cranberry on high land, but in most cases we have had reports from partial trials. Some person sets vines with a shovel-full of peat taken up with the vine, and this may support it the first season; but a few years' experience is necessary to show the effect of hard winters and dry summers.

One cultivator took a premium for raising four hundred bushels of cranberries on an acre of high land. A gentleman informed us last summer that he had been to his place, and searched in vain for high land cranberries. A few years since, something was published of extensive and thorough experiments on the cultivation of the cranberry, in a certain location, and occasionally we heard something more on the subject.

Last fall, the season for the crop, we examined the result of these experiments, and though there was not a single berry to mark the site, or show the object of expenditure, there were monuments of great labor and expense.

We name these discouragements, as the public have been deceived on this subject, and it yet remains to be proved, by fair experiments, whether the cranberry will endure our cold and changeable winters, and hot, dry summers, on dry land, or common tillage, with common cultivation.

We have seen very fine cranberries, of spontaneous growth, on extremely dry, hard, poor, porous soil, where weeds could obtain but a stunted growth. This leads us to suppose that they would do well in the more advantageous situation, apparently, of good, mellow land, in good condition.

We planted vines, from high and low land, last spring, on common tillage, and gave common culture. All that we report is, that they lived, grew but little, and bore only a few berries. The following communication is one of the most sensible that we have ever seen on this subject. With it we received a box of cranberries, remarkably fresh, rich, and spirited, and yet very tender; being finer than those picked in the fall, either at that period or the present. Time and the weather have finely ripened and mellowed them, without any loss of good qualities.

For the New England Farmer.

CULTIVATION OF THE CRANBERRY IN GARDENS.

MR. EDITOR: It is probably not generally known, that the cranberry can be successfully cultivated, like the strawberry, in our gardens; yet such is the fact. It is necessary, however, to prepare a bed of common garden soil, not absolutely dry, in which a portion of sand and peat has been well incorporated. This preparation of soil we deem important in the cultivation of the cranberry. Possessing, as it does, a delicate, fibrous, or hairy root, it requires a sandy peat, in which to thrive. In the selection of plants for the purpose of cultivation, we prefer those growing in low grounds, near the upland, in preference to those found in wet, mossy meadows. We think the autumn a favorable season for transplanting the cranberry, as they can the more readily be taken from low, wet lands. In removing the plants, it is best to take up a sod of earth with them, carefully picking out the grass. These may be set in the bed, in rows twelve or eighteen inches apart, and if the ground is mulched with litter between the plants, it will serve to keep it moist, and prevent the growth of weeds. This will be no longer necessary when the vines extend and cover the ground with a thick mat of verdure; they are then less affected with the drought, and the weeds disappear.

It may be necessary to water the bed, in very dry weather, and keep it clear from weeds and grass, at all times. The plants of the cranberry need protection in winter. This, you will recollect, it always receives in its wild state in the meadows, by the overflowing of them by water. My plants are protected by covering them with the boughs of some evergreen tree. I prefer, for this purpose, the prostrate branches of the juniper, or, as it is sometimes improperly called, ground hemlock. This effectually protects the roots of the plants from the effects of the frost, likewise its evergreen leaves, and its fruit.

We have been in the habit of leaving a considerable portion of the fruit of the cranberry on the vines during the winter. We find it keeps well, and can be taken fresh from the vines, when wanted. The cranberries I send you were taken from my bed yesterday, and you will perceive a plumpness and freshness not to be found in those dried in garrets, or drowned in water, in cellars. Those persons, who have had much experience in the cultivation of native plants, found growing in swampy or very wet land, will have noticed that some of them will bear a removal, and more readily accommodate themselves to a comparatively dry soil, than others. And I am inclined to think the cranberry is disposed, when removed to our gardens, and a suitable reception is prepared for it, to accommodate itself to its new location. But in order to completely naturalize it, and render it at home, we should produce plants from seeds taken from specimens under cultivation. I can see no obstacle in the way of complete success, in the cultivation of the cranberry, provided the same care and skill is bestowed upon it, that is rendered to other fruit.

SAMUEL P. FOWLER.

DANVERS, NEW MILLS, Dec. 12, 1848.

For the New England Farmer.

CULTIVATION OF RYE.

MR. COLE: It has been a matter of surprise, that so little attention has been given, by our farmers, to the raising of this grain. When it is considered, that a fair crop can be grown on land of ordinary quality, and that the crop can be raised and gathered with less labor than most other grains, no good reason can be given why the farmer should not raise enough for his own consumption.

During the past season, there were raised on the town farm, in Danvers, *fifty-five bushels* of rye, on one and a quarter acres; or at the rate of forty-four bushels to the acre. This is the best crop of the kind that has come under our observation. For the instruction of those who may wish to repeat the experiment, I will state the prominent facts relating to the culture.

The land is a gravelly loam, soil rather light and shallow. In 1845, the entire field yielded less than one ton of hay. In 1846, it was planted with corn, and yielded about fifty bushels to the acre. A full shovel-full of manure from the hog-yard — made from meadow-mud and slaughter-house offal, by the operations of a large number of swine — was placed in each hill. In 1847, about five cords of like manure was spread upon the land; and the same was planted with potatoes, and the crop was large and of good quality. They were dug about the 20th of September, when the land was ploughed with four oxen, and about one and three quarters bushels of rye was sown and harrowed in. It came up well, and grew in the most flourishing manner through the season; averaging from five to six feet in height. It was harvested about the middle of July, in bright and good condition.

The distinguishing characteristics of this cultivation were *deep ploughing* and *full manuring*. At each of the ploughings of the land, for three years past, a strong team was used, and the furrows run from eight to ten inches in depth. In this way a substratum was formed for the growth and support of the grain, that saved it entirely from injury by drought — the land being rather dry. The same farmer has succeeded for several years in obtaining very good crops of rye; and we think his success is owing more to his deep ploughing, than any other cause. In fact he has created a soil of ten or twelve inches in depth, where there were not before more than five or six. I offer these facts for your use, if you think them worthy a place in the *New England Farmer*.

Very respectfully,
J. W. PROCTOR.

DANVERS, Dec. 1848.

For the New England Farmer.

GENERAL IMPROVEMENT OF A FARM.

MR. EDITOR: In my intercourse amongst farmers, I find a class of men, who, on conversing with them in regard to making betterments on their farms, will tell you, if they were able to improve their farms, as they ought to be, and make thorough work, they should like to do it; but they do not like to begin, because they have not time to finish to suit them. So their farms lie year after year, without any advancement, because, forsooth, they cannot do all at once.

Now, to such, and all, who are beginning with a view to the general improvement of their farms, I have a few suggestions to make. If a worn-out farm is to be reclaimed, it must be kept in mind, that it is to be done by a great number of small jobs, I may say almost without number, some of which may be accomplished, perhaps, in ten or fifteen minutes, with suitable tools, after being on the ground, and which, of themselves, are perfect, and tending to the general result. Others, perhaps, may take several days.

In one place, the cutting of a small ditch from the road-side, and directing the wash of the road upon grass, and in another, ploughing a single furrow from a piece of low land and taking off the surplus water, may add to the quantity and quality of the hay twenty times more than the expenses incurred. Again, the removal of rotten stumps and small surface stones, and in some cases old logs on the mowing lands, so as to admit of using the horse-

rakes, thus saving time and increasing the amount of produce.

One improvement being made, will pay the expenses of another, and the increase will be accelerated, like the accelerated motion of a falling body; and almost before the improver is aware of it himself, he will find his farm assuming a healthy appearance, and the work, which at first seemed so difficult and hard to be accomplished, will become a pleasure.

The first thing necessary, in order to accomplish so desirable a result, is to examine the farm in all the different fields, noting the improvements which may be made, taking that class, which may be made with the least expense, first; have the improvements necessary to be made fixed in the mind, so that when there is a leisure from the common labors of the farm, such as planting, sowing, and harvesting, there may not be any time wasted in thinking what to go about, but select some one of the improvements, according to the time which can be spared, and go about it with earnestness, accomplish it, and the fruits shall be enjoyed. — "The wilderness and the solitary place shall be glad for them; and the desert shall rejoice, and blossom as the rose." Isaiah, 35.

Yours respectfully,

S. M. STANLEY.

WEST ATTLEBOROUGH, Dec. 22, 1848.

For the New England Farmer.

ASHES FOR POTATOES.

MR. EDITOR: I offer you a few remarks on the potato. For five years I have been trying experiments on raising potatoes. This year I planted early in May, dug holes, and put in my potatoes, and then a shovel-full of coal ashes, some hard and some soft, with wood ashes, mixed with some horse manure on the top. The potatoes came up early, looked well, continued perfectly healthy, and ripened well. I dug them in September, and found them perfectly sound, not finding a decayed potato. They have continued sound, and there is no appearance of rot.

I planted some of the same kind of seed, on the same kind of ground, (except mud had been spread on the furrow,) with good manure, and at the same time; and when I gathered them, they were sound, but soon began to decay. Probably I shall lose one quarter of them, and the rest are rather soggy, while the others are mealy and good. Now, it appears to me the difference is owing to the kind of manure, and the preserving quality of the ashes. I hope others will try the experiment. I have no doubt of the good effects of ashes, as others in the vicinity lost more or less of their potato crop.

Yours truly,

S. A. SHURTLEFF.

BROOKLINE, Dec. 1848.

EDITORIAL REMARKS.

Some years before the potato rot prevailed, a very skilful cultivator showed us his mode of raising smooth potatoes in an old garden. He put about a half pint or a pint of coal ashes in each hill, and his potatoes were remarkably smooth and excellent. Previous to his using ashes, his potatoes were much injured by worms.

He showed us a spot where he had thrown coal ashes to fill up a hollow, until they were too deep for roots of vegetables to penetrate below them. In these ashes, good potatoes and beans were growing, which showed clearly that the ashes contained food for plants.

LEGISLATIVE AID TO AGRICULTURE.

In the forthcoming Transactions of the Essex Agricultural Society, a few pages of which we have received by the politeness of the president, John W. Proctor, Esq., are valuable hints by this officer to the trustees, from which we copy his remarks, in relation to legislative bounty, with a view of bringing the subject early to the consideration of the legislature.

If there is one subject of more general interest to the community than another, that subject is agriculture, as it is at the foundation of all other pursuits. This state has been one of the first in the Union in the laudable object of encouraging agricultural improvement, by enabling societies to offer liberal premiums for superior productions, management, and inventions. And since the happy results of legislative bounties upon the prosperity of the state are well known to every member of the legislature, we trust that the present aid will not only be continued, but liberal additions will be made to the present donations, commensurate with the liberal policy of the state, and the favorable effects from her past munificence. We copy from the Transactions.

The continued liberality of the state, which has enabled the Society to offer our premiums annually, although to a limited extent, and the adoption of a system of economy that has kept its expenditures within the income, have had a tendency to prevent the enlisting of new members; especially while those who were not members were permitted to enjoy equal privileges, in competing for premiums, as those who were. If care had been taken to increase the funds by the addition of *seven hundred new members*, who have come upon the stage since our operations commenced, who would have been ready to join, if properly solicited to do so, this addition could have been advantageously appropriated, in the new modes of improvement, that would have been brought forward.

In fact, those who have directed the concerns of the society, have always felt themselves constrained, not by the want of objects of premium, but by the want of means to afford them, and by the desire to give permanency to the funds, that should enable the society to continue its operations, if, perchance, any thing should happen to discontinue the legislative bounty. But there is no reason to fear any such discontinuance. Whatever party may be in power will not presume any such thing. Among all the fanciful projects of economy that have been agitated, we have never heard an intimation of the expediency of withholding the bounty to agricultural societies. On the contrary, the appropriation has been very generally approved; and it remains with the farmers, themselves, to say, when, instead of *six hundred dollars* annually, there shall be given *one thousand dollars* annually, to each of the societies. Is this a visionary project? Could it not be done by a little exertion? Appoint your agents to solicit subscribers. Let a memorial be presented to the legislature, setting forth the benefits to accrue therefrom; let the other societies in the commonwealth be solicited to coöperate; and three chances out of four, another year would crown the enterprise with success. There is nothing like trying. Something has been done for agriculture, but not so much as its relative importance demands.

FATTENING ANIMALS. — A memoir was read to the Academy of Sciences, at Paris, by MM. Dumas,

Boussingault, and Payan, "of researches on the fattening of animals, and on the formation of milk." These philosophers announce their belief that fatty matters are formed in plants alone; that they thence pass, ready formed, into the bodies of herbivori, entering the chyle duct by the lacteals, and so passing into the blood; that the first degree of oxydation forms stearine or oleic acid; a further degree produces the margaric acid, which characterizes fat; a still further degree, the volatile, fatty acids — in opposition to Liebig, who traces the origin of fat to the sugar or starch of the food. In confirmation of their views, they show that hay contains more per cent. of oleaginous matter than is produced in the butter from a cow fed on this hay; and that cows fed on potatoes, or other roots poor in fat, produce much less butter. They advance an influence, which bears much on rural economy, that a cow eliminates twice as much fat from a given quantity of food as does an ox; and hence the commerce of milk and butter deserves a high degree of attention. Some relative experiments on fattening pigs bear out the same general principles. — *Pol. Review.*

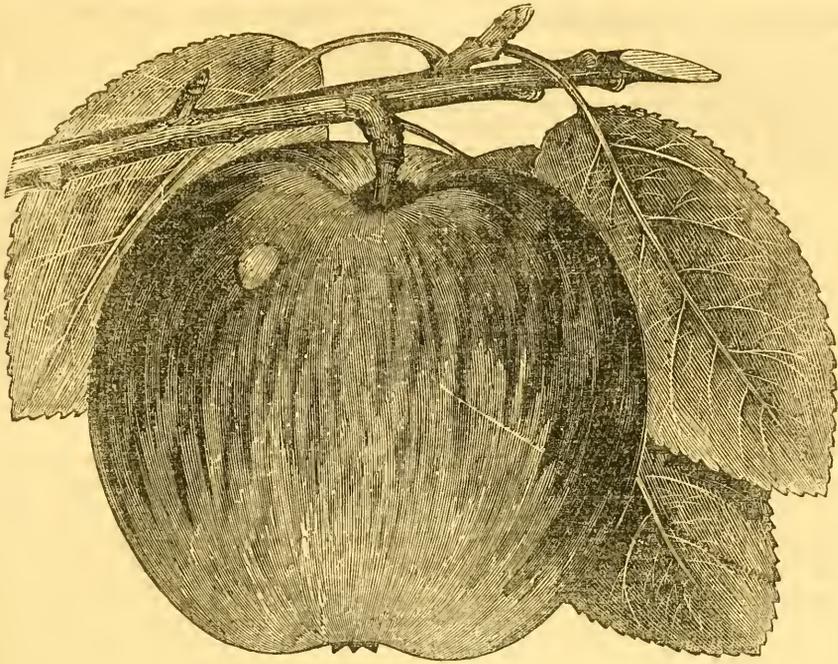
MANAGEMENT OF HORSES.

We have no domestic animal among us, that costs us so much that will do a greater variety of work, or that is so much abused, as the horse. Like his master, the horse is complicated in his structure, and liable to a great many diseases; and as he is capable of being made to exert all his powers of body in the efforts of speed or severe labor, nine tenths of them are cut off in the prime of life. And yet by care and attention, by kind and humane treatment in working and feeding, he can be made to endure a great many years, active and strong. Mr. Pell, of New York, has given some excellent rules for the management of horses, which were published in the Transactions of the New York Agricultural Society. Among the good ideas which he there advanced, he observes, "Feed them in winter on a variety of food, such as oats, ground and whole, bran, strip stuff, beans, peas, turnips, carrots, potatoes, and parsnips, occasionally steamed separately and together. In summer, keep them always confined in airy stables, and feed them on clover, bruised grains, green cornstalks, eider pomace, oil cake, hay, &c. Be particular to give them three fourths of a pound of salt per week; occasionally two ounces of sulphur, and frequently two ounces of wood ashes.

"By good keep and judicious management, a pair of horses, perfectly sound when young, will last, and labor constantly, twenty-five years, and to the end will retain their spirits. I have a pair of bay horses," he observes, "on my farm that are now twenty years old, during which time they have never been at pasture, and have worked daily; they have never been incapacitated for work by lameness, or disease of any kind, and have always been perfectly healthy." He also adds that he has "another pair of sorrels that are eighteen years old, which labor daily, and will do as much work as any pair of six years old."

The above statements of Mr. Pell are worth listening to, and his advice should be followed. Much loss would be prevented, and much suffering to a faithful and useful animal be warded off, while the long-continued powers for labor would amply reward the extra care and kindness thus bestowed, even if the virtue of mercy to those brutes intrusted to our protection were not taken into account. — *Maine Farmer.*

Bird-lime is prepared from the berries of the mistletoe and the middle bark of the holly; it is boiled till it becomes soft.



HUBBARDSTON NONSUCH APPLE.

Fruit, from large to very large; roundish, tapering moderately and roundly to the top; skin, smooth, fair, rich, yellow ground, mostly covered with bright red, dark and unbroken in the sun, striped in the shade, generally russet around the stem, and sometimes a very few large prominent russet specks on other parts; stem, medial length, rather slender, in a rather broad, deep, regular cavity; eye, large, open, in a shallow basin; flesh, yellowish-white, tolerably fine, crisp, juicy, of a mild, pleasant, aromatic flavor, inclining to saccharine. In use from the latter part of October into December. It should be used as soon as it is in its prime, as it grows dry and spiritless very soon. It is hardy: we have had it growing several years in Maine, without injury in the winters. The growth is good, but not great, about the same as that of the Porter or Jewett's Red. The new wood is long and slim, and covered with a whitish, woolly or furzy substance, which distinguishes it from a spurious and worthless kind, that has a stout, naked scion, resembling that of the Baldwin. It is a good bearer, and bears about two thirds of its produce in alternate years, and generally in even years, as, '46, '48, &c.

The Hubbardston Nonsuch is one of our best late fall apples, particularly for the market, where it is very popular, bringing the highest price. Some say that this fruit has been overrated, but those who give it good culture, get large, fair crops, and sell the fruit from three to four dollars a barrel, make no such complaint. Yet as the fruit is rather transient, it is not adapted to extensive culture. Origin, Hubbardston, Mass.

PIPES FOR UNDERDRAINING.

SALT MUCK.

In your last number, you invite communications in a plain way, from plain men, and I avail myself of the invitation, coming as I do under this denomination of persons.

You have an article — "Pipes for Underdraining," — by which I learn of the intended importation of a machine from England, for making drain pipes. I desire to say to you, that this summer, I drained 1864 feet, and procured the pipes and flats made by Mr. A. Price, of Middletown Point, Monmouth county, New Jersey, at \$16 per 1000 feet, at his works. They are the half pipe, such as you see represented in Stephens's Book of the Farm, each pipe about one foot long, and three inches in diameter, inside, of burnt clay. If any of your friends should not be disposed to wait for the machine, this may be to them acceptable intelligence.

I have used a great deal of salt muck to good advantage. I hope to haul up 1000 loads, this winter, into my barnyard. My first experiment was with a Siberian crab-apple tree, which I transplanted from a place where it did not appear to thrive. The salt muck had laid over one winter, mixed in alternate layers with lime. A hole, about three feet by four, and two spades deep, was dug, and filled with this mixture, and the tree planted in the centre. It grew very luxuriantly, full two feet for one, compared with another apple-tree, (a russet,) within the distance of thirty feet, and I have ever since been an advocate for salt muck. T. J.

October 10, 1848. — Selected.

HUMAN KNOWLEDGE is a proud pillar, but it is built in the midst of a desert of ignorance, and those who have ascended the highest have gained the most extended view of the waste.

IMPORTANCE OF AGRICULTURE.

The vital importance of agriculture, in a national point of view, may be seen in the consequence of its neglect a few years since, when a speculating mania seized the minds of the community, and the cultivation of the earth was in a great measure neglected; when the regular harvests of the field were of too slow a growth, and yielded too small a profit to satisfy the minds of those, who, blinded by visions of golden harvests to be reaped in a single day, looked upon agriculture as unworthy of a moment's regard; and the melancholy spectacle presented itself of this immense and fertile country being under the necessity of importing bread from Europe! Had this mad career been persisted in, it is obvious that we must, as a people, have rapidly descended the path of national ruin. But these schemes have passed away "like the baseless fabric of a dream." More just and sober views have succeeded, and this great pursuit of the nation has been prosperous.

According to the report of Mr. Burke, the Commissioner of Patents, for the last year, the value of the grain crops and the great agricultural staples of the country, amounts, in round numbers, to eight hundred and thirty-eight millions of dollars; the value of the products of orchards, gardens, and nurseries is estimated at fifty-four millions; the value of live stock, wool and dairy products amounts to two hundred and fifty-two millions; the value of products of the woods and forests amounts to fifty-nine millions; making a total of more than one thousand two hundred millions of dollars for the products of the soil for a single year. From the same source I give an estimate of the income of the other industrial classes. The income of all the manufactures in the Union for the same year, is estimated at five hundred millions of dollars; the profits of the fisheries, seventeen millions; the profits of trade and commerce, at twenty-three millions; and of professions, rents, banks and money institutions, one hundred and forty-five millions; making a total of seven hundred and eighty-five millions of dollars. By these estimates the amount of the industry of the country for a single year is one thousand nine hundred and eighty-nine millions of dollars. Of this immense sum nearly two thirds is the produce of agriculture.

Here is a lesson for those who have regarded agriculture as of minor importance, and considered other pursuits of more consequence; and also to residents of our great commercial cities, who, being accustomed to the noise and activity of those crowded marts, have looked upon commerce as the great leading interest of the Union. These estimates will correct such views, and show that, although the interest in commerce is great, yet, contrasted with that of agriculture, it is comparatively insignificant. The same amount of income from trade and commerce as that of 1847, would not in fifty years equal the estimates of the income of agriculture for that year.

These extracts and comparisons are not made for the purpose of undervaluing any of the great industrial pursuits of the country; far otherwise;—for all the different professions are reciprocally beneficial, and go to swell the aggregate of national prosperity;—but for the purpose of rescuing the profession of agriculture from the unjust estimate it has held in the minds of some, and of presenting the subject in its true light.

It is agriculture which enables us to receive and supply the wants of those thousands of oppressed and destitute immigrants who are annually seeking an asylum on our shores, from foreign oppression.

It was a successful agriculture which enabled us so recently to send relief to the famished inhabitants of a transatlantic region; not only to supply them

commercially, but to extend the hand of a nation's charity.

What scene more touching than that, when the destitute inhabitants of that distant land, hourly sinking to the grave for lack of bread, saw in the distant horizon, through the mist of death which was fast gathering around their dying vision, the flag of the republic approaching, whose hostile appearance would now fill the greatest nation with apprehension, but on that occasion waving over a national ship, divested of the thunders of war, and hastening on the wings of the wind, deeply laden with the means of relief to suffering and dying humanity! Such a scene cannot be fully realized but by the rescued and grateful sufferers, and will forever stand a glorious memento of the gentle charities of the Christian life to destitute humanity, though the billows of a mighty ocean intervened!—*Newhall's Ad. before the Essex Ag. Society.*

LEAVES FOR MANURE.—As the season is at hand when the leaves will be falling from the trees, it may be well to remind our readers that they make excellent compost when added to the manure heap. A boy, with a horse and cart, can collect a large amount of them in a short time. You will find them to make excellent litter for cattle and horses in their stables; absorbing all the juices, and retaining them while used in spring. We have published, in some of our former numbers, the analysis of some kinds of leaves, made by skillful chemists, by which it has been ascertained that they possess the different kinds of ingredients essential to the growth of different plants, and especially of those kinds pertaining to the genus of trees from which they fall.—*Maine Farmer.*

THE OSTRICH, OR COCHIN-CHINA FOWL.—This variety of fowl so far surpasses, both in size and power, all that we have ever yet seen in the shape of poultry, as to lead many, who have been permitted to inspect them, to refer them to the family of bustards. They are, however, genuine poultry. Their general color is a rich, brown, deep bay; on the breast is a marking of a blackish color, and of the shape of a horseshoe; the comb is of a medium size, serrated, but not deeply so, and the wattles are double. Besides their gigantic size, however, these fowls possess other distinctive characteristics, among which I may enumerate the following: The disposition of the feathers on the back of the cock's neck, is reversed, these being turned upwards; the wing is joined, so that the posterior half can, at pleasure, be doubled up, and brought forward between the anterior half of the body.—*Richardson on Dom. Fowls.*

A Scotchman who fattens 150 head of Galloway cattle, annually, finds it most economical to feed with bruised flaxseed, boiled with meal, barley, oats, or Indian corn, at the rate of one part flaxseed to three parts meal, by weight.—The cooked compound to be afterwards mixed with oat straw or hay. From four to twelve pounds of the compound are given to each beast per day. Would it not be well for some of our farmers, who stall-feed cattle, to try this or a similar mode? We are by no means certain that ordinary food would pay the expense of cooking; but flaxseed is known to be highly nutritious, and the cooking would not only facilitate its digestion, but it would serve, by mixing, to render the other food palatable, and by promoting the appetite and health of the animal, would be likely to hasten its thrift.—*Albany Cultivator.*

KEEP YOUR STABLES CLEAN.

As our stock all stand on plank floors, early in the morning we first take up that part of the litter which is not much soiled, with a fork, and place it in the back part of the stalls, to dry during the day. We then clean out the manure, and put it on the dung heap. If litter be plenty, and it is an object to make as much manure as possible, then we should let all the litter go with the manure, and add plenty of fresh every night for the stock to lie on. And while on this subject, we wish to observe that if the litter be straw or coarse hay, it ought to pass through a straw-cutter before using it. This makes it much easier to fork the manure in the heap, as it is not then bound together with long straws. After removing the manure, we give the stables a slight sprinkling of plaster of Paris, or charcoal dust. Either of these substances absorbs all unpleasant effluvia, sweetens the atmosphere, and in the course of the season, adds considerably to the value of the manure heap.

Many farmers let their stock stand on the ground. If the soil be dry, there is no objection to this. If not cleaned out till spring, the manure should be spread evenly over the surface of the stable, every morning, a coating of plaster or charcoal dust then put upon it, and fresh litter added before night. Each animal will thus make a larger quantity of valuable manure during the season. One great advantage follows this system, and that is, the salts are not exposed to be washed out of the manure by rain, nor volatilized by the sun, as when exposed to the open air in the barnyard and other places. — *American Agriculturist.*

DRAINING OF MARSHES AND WET ARABLE LANDS.

By being drained, marshes which are now unsightly sources of disease, and as unproductive as unhealthy, may be converted into beautiful meadows, at once the fountains of wealth and the guaranties of health. All who have such lands upon their estates, should, at once, set about to transform them into arable soils. The improvement may cost time, labor, and money, but it will pay twenty per cent. upon the outlay in products, besides adding largely to the intrinsic value of such estates.

The facts here presented for consideration are worthy of mature reflection. Mr. F. Pym, of England, a farmer of great practical experience, used the following emphatic language with respect to the value of draining lands: "Without that necessary operation — draining — the profitable occupation of heavy land cannot be carried on."

F. Falkland, Esq., also of England, the author of several agricultural works of merit, thus sums up his views upon the importance of draining: —

"In conclusion it should be observed, that every attention which can be paid to the preparation and application of manures will be ineffectual in rendering soils fertile, unless due regard be given to the removal of excess of moisture by draining, when needful. When a soil is saturated with water, air is excluded from the roots of the plants, and prevented from acting upon the manure; while the low temperature produced, by continued evaporation from the surface, has an additional powerful effect in retarding the progress of vegetation.

"To lay manure upon wet soils, is, in truth, to throw money away; but were draining universally effected, the whole of the now unproductive soil of the country would, to a vast extent, be rendered capable of receiving the benefit of the numerous modes of fertilizing it. Its returns are immediate, as well as compensative; and to hesitate to drain the

land, is to hesitate to confer a benefit upon one's self, of which a strong proof has been lately brought forward in a statement of the profit resulting from the drainage of four hundred and sixty-seven acres, and the employment of the drain water over eighty-nine acres of land, on the estate of Lord Hatherton, in Straffordshire — affording a clear annual interest on the outlay of full thirty-seven per cent." — *Genesee Farmer.*

DEPTH OF PLOUGHING.

All cultivated plants are benefited by a deep permeable soil, through which their roots can penetrate in search of food; and although depth of soil is not fully equivalent to its superficial extension, it is evident that there must be a great increase of product from this cause. For general tillage crops, the depth of soil may be gradually augmented to about twelve inches, with decided advantage. Such as are appropriated to gardens and horticultural purposes may be deepened to fifteen and even eighteen inches, to the manifest profit of their occupants. But whatever is the depth of the soil, the plough ought to turn up the entire mass, if within its reach; and what is beyond it should be thoroughly broken up by the subsoil plough, and some of it occasionally incorporated with that upon the surface. The subsoil ought not to be brought out of its bed, except in small quantities, to be exposed to the atmosphere during the fall, winter, and spring, or in a summer fallow; nor even then, but with the application of such fertilizers as are necessary to put it at once into a productive condition. The depth of the soil can alone determine the depth of ploughing; and when that is too shallow, the gradual deepening of it should be sought by the use of proper materials for improvement till the object is fully attained. Two indifferent soils of opposite characters, as of a stiff clay and sliding sand, sometimes occupy the relation of surface and subsoil towards each other; and when intimately mixed and subjected to the meliorating influence of cultivation, they will frequently produce a soil of great value. — *Genesee Farmer.*

THE LONGEVITY OF TREES. — A writer in the Edinburgh Philosophical Journal, alluding to the longevity and size of trees, states that in Britain there are still extant and growing oaks, and probably elms, which were planted before the Conquest; i. e. more than eight hundred years ago. And there are yew-trees, much older still. There are some at Fountain Abbey, near Ripon, in Yorkshire, which are believed to be more than 1200 years old; two in the churchyard of Crowhurst, in Surrey, of 1450 years; one in Braybourn churchyard, in Kent, is said to have attained the age of 3000 years; and another at Hedsor, Bucks county, which is in full vigor, and measures twenty-seven feet in diameter, appears to be upward of 3200 years old.

NATURAL HABITS OF DOMESTIC ANIMALS. — The natural habits of different domestic animals differ very considerably. In small and thorough-bred horses, the pulsations of the heart are about forty to forty-two in a minute. In farm horses they do not amount to more than thirty-six. When they are treated ill, or even when spoken roughly to, their circulation is increased, say ten pulsations per minute. — Cold has great effect on the pig. It is found that pigs whose sties have a southern aspect, thrive much better than those placed in a colder declination; they can hardly, perhaps, be kept too warm, or too clean." — *Cuthbert W. Johnstone, Esq., Farmer's Magazine.*

Domestic Department.

For the good housewife who would manage her household affairs in the most prudent and judicious manner, and train up for useful action the tender minds committed to her care, this department is designed. These subjects are of a wide range, and of many forms or phases, and they are all susceptible of improvement. The good woman of the house has her field of action, as well as the farmer; and in her sphere, skill, science, intelligence, and good taste, not only contribute, as much to the happiness of the family, as does the good management of the cultivator in his field, but they contribute equally as much to prosperity, and the acquisition of a competency.

Having thus presented the importance of the subjects, in which we hope that all our fair readers will take a deep interest, we would invite them to communicate for this department. We are among those who believe that females are not inferior in mental powers to those who would be the "lords of creation," and there is no reason why they should not furnish communications for this department, as well as men, on subjects in their appropriate sphere.

HOME EDUCATION OF DAUGHTERS.

Messrs. Editors: There is a subject which might perhaps, with propriety, find a place in your journal, if some able pen could take it up, and treat it according to its importance. The subject to which I allude is the *Home Education of Daughters*.

Where, but at home, are nurtured and expanded all the finer feelings of our nature, all the sympathies of the heart? The daughter, in relieving the mother of pressing and indispensable cares, of administering to the wants of father, brother, or sister, enjoys infinitely more heartfelt satisfaction, than she could in displaying her attainments (be they ever so numerous) in what are styled the more polite accomplishments.

The aim of education seems to be, to fit each of us to fill with ability and propriety our individual station in life. A correct home education must, therefore, be regarded as the corner-stone of all that is truly desirable, excellent, or beautiful, in female accomplishments. What though the superstructure be ever so beautiful and elegant, ever so symmetrical and tasty; yet if the foundation be deficient, where is the worth of the edifice? Who would choose it for a resting-place? Who would repose in it with trust and security?

The American mother should, above all others, feel the importance of training her daughters to habits of domestic industry, to the cares and duties of *real* life, which tend to call forth the enterprise and energies of their natures, which qualify for usefulness, rather than to shine and dazzle. Let the useful, the agreeable, and ornamental, be made to harmonize. Our daughters should be taught to feel that a practical acquaintance with domestic labor is as indispensable to their thorough education, as the knowledge of music, drawing, or the languages, and that to understand plain needlework is much more requisite than skill in embroidery. There is time enough, if introduced advantageously, from infancy to maturity, to learn all these things. While a practical knowledge of every branch of household economy detracts nothing from her accomplishments, it adds a pleasing lustre to her character.

If, now, I have said enough to provoke some competent person to take up this subject, you will not again be troubled with communications from

IDA.

— *Central New York Farmer.*

BOILING WATER. — We wish to correct a mistake that prevails among many of our housekeepers, which is, that the hotter the fire, the hotter the water that is boiling over it. Now, the boiling point of water is two hundred and twelve degrees, and hotter than that it cannot be made, in an open vessel, or in one covered with a loose lid, however great the fire under it may be. As soon as water reaches the temperature of two hundred and twelve in the ordinary state of the atmosphere, it commences boiling, and any increase of heat under it only increases the evaporation, without in any manner changing the temperature of the water. After reaching the boiling point, water is changed into vapor, or steam, which absorbs the heat as fast as it comes in contact with the water, and immediately carries it off into the atmosphere, combined with water, in the form of vapor. — *Selected.*

FLOUR, BOLTED AND UNBOLTED. — An article which we first noticed in the Albany Journal of Agriculture and Science, and the object of which is to show that bolted is much less nutritive than unbolted flour, is now going the rounds of the public newspapers. However great the difference in this respect, it will be a difficult matter to induce our housekeepers to adopt the use of unbolted flour, until they can be fully persuaded that brown bread *looks* better than white. There is no doubt, however, but that, weight for weight, unbolted flour is more rich in all the essential elements of nutritive food than the ordinary fine flour of commerce. "But then it makes brown bread." — *Iowa Farmer.*

Boys' Department.

Boys, please to consider why you are sent to school, or directed to study at home, day after day, and from year to year. The great object is, to acquire an education that will enable you to act with intelligence, when you are old enough to attend to business. We will give you one hint which may be followed with ease and pleasure; and if attended to, it will be worth to you more than a gratuitous passage to the gold regions of California, for intelligence is conducive to happiness, and it is a treasure of which none can rob or defraud you.

Here is that useful hint. In all cases, learn the meaning of every important word you meet with in conversation or reading, that is not already familiar to you. This you may do by inquiring of your friends around you, at the proper time, or by consulting a dictionary, or encyclopedia, or a gazetteer or geography, for names of places. This course may be rather difficult at first, but as you progress, your minds will expand, and it will be a pleasure, and after a while you will acquire a fund of knowledge on every subject, and you will learn definitely the nature and power of language, and not only learn the true meaning of expressions and sentences which you hear or read, but it will enable you to use

language correctly, and express truly any thought you desire. At some future time, we may illustrate our remarks by examples.

GOOD ADVICE TO BOYS. — Be *brisk, energetic, and prompt!* The world is full of boys — and men too — who draw through life, and never decide on any thing for themselves — but just draggle one leg after the other, and let things take their own way. Such people are the dull stuff of the earth. They hardly deserve as much credit as the wooden trees; for the trees do *all the good they can*, in merely growing, and bearing leaves and seeds. But these drawling, draggling boys do *not* turn their capacities to profit, half as far as they might be turned; they are unprofitable, like a rainy day in harvest time. Now, the brisk, energetic boy will be constantly awake, not merely with his bodily eyes, but with his mind and attention, during the hours of business. After he learns what he has to do, he will take a pride in doing it *punctually and well*, and would feel ashamed to be told what he ought to do without telling. The drawling boy loses in five minutes the most important advice. The prompt, wide-awake boy never has to be taught twice, but strains hard to make himself up to the mark, as far as possible, out of his own energies. Third-rate boys are always depending upon others; but *first-rate boys depend upon themselves*, and after a little teaching, just enough to know what is to be done, they ask no further favors of any body. Besides, it is a glorious thing for a boy to get this noble way of self-reliance, activity, and energy. Such a one is worth a hundred of the poor, draggling creatures, who can hardly wash their own hands without being told, *each time*, how it is to be done. Give me the boy who does his own work promptly, *and well*, without asking — except once for all, at the beginning — any questions. The boy who has his wits about him, is never behindhand, and don't let the grass grow under his heels. — *Farmer and Mechanic.*

Health.

BATHING OR WASHING IN WINTER. — This operation, so essential to good health, is so little practised in winter, that the very naming of the subject will send a thrill through the sensitive frame of many of our readers, and they will draw their garments closer around them, and move nearer the fire, to save them from taking cold while reading this article.

There is but little trouble in bathing in hot weather, when the application of cold water to the system is often grateful. But in cold weather, there is in most minds a dread of water, almost as great as in one afflicted with the hydrophobia, and bathing and washing, in winter, are generally discontinued; and this is one cause of colds at this inclement season.

In summer, the skin is soft and moist, and by profuse perspiration, and the frequent change of garments, the system is cleansed, in some measure, without washing; yet washing is necessary. But in winter, the perspirable matter passes out to the surface of the body, where it lodges, forming a dry scurf, closing the pores of the skin, and perspiration after a while becomes impeded, and the redundant matter is thrown inward upon the lungs, and must be thrown off by coughing; thus requiring a double office of these delicate organs, which have enough

to do in their own peculiar province, in a climate where the thermometer often varies in twenty-four hours as many degrees.

Infants are generally washed daily, but when they become large children, and adults, they often go six months without this operation, so essential to health and comfort. The face is washed often, the body seldom. Why this difference? A thorough washing of the whole system once a week, is not a hard task, and the advantages from it will be great. It will not only add to health and happiness, but to life itself. If one thinks he has not time, let him take the time from the hours of sleep, even if he be already limited in that respect to five or six hours in the twenty-four. He will sleep *faster*, after bathing, and make up for the deficiency.

After bathing or washing in cold water, brisk rubbing, with a coarse cloth, will produce a pleasant glow, and prevent injury even to a person of a delicate constitution. But those who choose can use warm water in a warm room. We say to our readers, as you value health, life, and happiness, give due attention to thorough and frequent bathing and washing. See that every member of the family attends to it, at least once a month; once a week is better. There is no excuse for the gross neglect on this subject, for if any one has not a bath, or shower bath, a tub is sufficient; and any one who has six hours to sleep, can take half an hour for bathing, and then he will gain an hour in sweeter, sounder, and more refreshing sleep.

REMEDY FOR TETANUS, OR LOCKED JAW. — We have been furnished, by a correspondent, with the following simple remedy for this disease, accompanied with a request to publish.

The writer, after alluding to a case in which a deserving individual lost his life by having a rusty nail run into his foot, says, —

“I would state, for the benefit of all who may have the misfortune to encounter similar mishaps, that a cent, or piece of copper, bound firmly over the wound, so as to compress it, will effect immediate and entire relief. The wound, whether made by a rusty nail or any other substance, speedily heals, and ceases almost instantaneously to be sore or painful. Tarnished or rusty copper is to be preferred to pure.

“ONE WHO ‘DOCTORS’ HIMSELF.”

— *Maine Cultivator.*

REMEDY FOR ASTHMA. — An individual who has suffered much from asthma, and who had in vain sought relief from regular physicians, wishes us to give publicity to the following remedy: —

“Procure common blotting paper, and thoroughly saturate it in a solution of nitre, (*saltpetre*,) and let it be carefully dried by the fire, or exposure to the rays of the sun. On retiring at night, ignite it, and deposit it, *burning*, on a plate or square of sheet zinc or iron in your bedroom. In many cases, it is said, this has enabled persons painfully afflicted to enjoy their rest.” — *Maine Cultivator.*

TO CURE A BURN. — A lady, preacher of the society of Friends, in New York, was so successful in curing burns, that many supposed her possessed of the power of working miracles.

The following is the recipe for the salve: “Take

one ounce of beeswax, with four ounces of Burgundy pitch, simmered in an earthen vessel together, with as much sweet oil as will soften them into the consistency of salve, when cool. Keep it from air in a tight box or jar. When used, spread it thinly on linen cloth, and apply it to the part injured. Open the burn with a needle, and let out the water till it heals."

Mechanics' Department, Arts, &c.

LAND FOR MECHANICS. — Every mechanic, excepting those residing in compact cities, should have a spot of land, in order to have transient fruits and vegetables, fresh and in prime condition, also for the purpose of embellishment with trees, shrubs, and flowers; affording, in addition, a pleasant and healthy exercise, during the hours of recreation, or respite from business or labor.

Some kinds of mechanical labor are of a light, sedentary nature, or they afford a strong exercise to some few muscles only; and while these are overtaxed, others are unemployed. But gardening, particularly such operations as digging, hoeing, shovelling, &c., gives exercise to all parts of the system, and conduces to that equilibrium of action so essential to health, refreshing rest and sleep, and that general comfort which constitutes happiness.

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"What great effects from little causes spring!
What wealth does labor well-directed bring!"

IMPORTANCE OF WELL-DIRECTED LABOR. — A single stroke of an axe is of little consequence; yet by the continual application of that small power, properly directed, what amazing effects are produced! The sturdy oak and lofty pine do not simply own its power, but whole forests fall before it, and the wilderness becomes a garden.

Industry, well directed, will give a man a competency in a few years. The greatest industry misapplied is useless.

As an example, there is my neighbor, Seth Steady, the blacksmith, is not only an industrious man, but his industry is applied to one object. His hammer is heard at dawn of day, and the fire blazes in his shop, during the evenings, from the 20th of September to the 20th of March. Go to his shop at any time of the day for any kind of work, you are sure to be waited upon. The consequence is, his purse is filled with dollars, and his cellars well filled with provisions; and that's what I call quite comfortable. Although suitably liberal, and enjoying the good things of life as he goes on, ten years of health will enable him to purchase a good farm.

As a contrast, there is my friend Nat Notional, the busiest and most industrious mortal in existence; as the old saying is, "he has too many irons in the fire," and with all his industry he goes behindhand.

He has a fine farm, but instead of pursuing the cultivation of it, he flies and seizes on every new project that occurs.

A few years ago he concluded to give up the dairy business, in consequence of the low price of butter and cheese; sold his cows at a low figure, and purchased sheep at a high rate, for wool then commanded a high price. By the time he got fairly into the raising of wool, down went the price of wool, and up went the price of butter and cheese. He then sold his sheep and purchased cows again, for cheese was up, and wool was down. Last year, after sow-

ing a number of acres of grain, he resolved to rent his farm, sell the grain on the ground, buy a team, and go to hauling; for, by a nice calculation, he had proved that money might be made by it. A team was procured; but after one or two trips, he concluded to sell his team, build a saw-mill, and go largely into lumbering. The dam was completed, the irons procured, and three fourths of the expense incurred, when, by a nice calculation, (for no one makes *nicer* calculations,) he found that an oil-mill would afford the best profit; and to work he went with great industry, building an oil-mill.

I happened to go there a few weeks afterwards, and the whole organization of the mill was undergoing an alteration, to fit it up for a cotton and woollen manufactory.

A quizzical friend intends to propose to him to abandon that project and enter largely into the manufacture of flour, and I have no doubt that he will readily accede to the proposal.

So with all his industry and expense, he is neither benefiting himself nor the public. — *Albany Cultivator.*

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TO MAKE A DELICATE PICTURE VARNISH. — Take two ounces of gum mastic and one ounce of gum sandarach, pulverize them to a powder, put them in a flask or glass bottle, and add a pint of alcohol; shake the whole together till the gums are well mixed with the liquor, and set it in a warm place to dissolve. When the gums have dissolved, strain the solution through a fine flannel, and put it in a clean bottle, corked tight, till wanted for use. This varnish may be applied to pictures, boxes, or other fancy articles, and will dry in one minute, and produce a beautiful water-proof gloss. When maps or pictures on paper are to be varnished, they must first be sized with a solution of gum arabic in water, to prevent penetration by the varnish; and if the weather is cold, the article must be warmed prior to the application of the varnish. — *Scientific American.*

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TO MAKE COURT PLASTER. — Take very thin silk, dip it in a solution of isinglass, (or fish glue,) with water, and after it becomes dry, dip it several times in the white of an egg.

DRIVING OXEN.

Those having the care of these useful animals, should never drive them so fast as to cause them to *toll*. A certain writer, in remarking upon this subject, says, —

"We sometimes see these animals moving so slow in the field and on the road, that we can scarcely tell which way they are going. This mode of driving is wrong; let them travel at least two miles an hour, and stop occasionally for breath. In this way we prevent their acquiring that slow pace with which the ox is so frequently reproached; and there is no difficulty, with proper management, in keeping him to this pace of two miles per hour. The driver should never let his whip become too familiar with his team. If he suffers it to rest on his cattle's backs, it is very likely to lose its charm; and a parent might as well give his rod to his child to play with."

In Scotland the ox is trained to a quick movement. He is never overloaded while young, and it is said rarely falls short of three miles an hour, as a common "jog," either on the road or in the field. The slow, almost imperceptible progress of some teams while ploughing, or performing other agrestic operations, is oftentimes painful to behold. It impresses one with

the idea of great fatigue, and can scarcely be dissociated, in the mind of the observer, from that of extreme exhaustion and pain. When young, the ox is nimble and sprightly, and as susceptible of speed as the horse. Yet, by wrong habits, he becomes heavy and sluggish in his movements, and finally acquires that slow, snail-like pace, which so greatly diminishes his value, as a draught animal, for most purposes, and which renders the driving of him wearisome and unpleasant in the extreme. — *German-town Telegraph.*

CUT FODDER.

The practice of cutting, or, as the British agriculturists denominate it, "chaffing" fodder, is among the most important improvements of the age. By cutting stalks, straw, and hay, a very large portion will be economized, which, under the old system of feeding, would be wholly lost. One bushel of chaffed fodder, given in a mess three times a day, will effect more good than twice the amount in its natural state. The weight of a bushel of chaffed hay is probably about five and a half pounds; and a horse or ox thrives more on fifteen pounds, thus prepared, (if we may credit the results of actual experiments,) than on fifteen pounds fed whole. This difference is owing in part to the meal with which it is ordinarily mixed; but when hay is only given, the difference is in the ratio of two to one. When cattle are fed on loose fodder, in its natural state, a very large proportion is inevitably lost: the breath of the animals renders it unsavory, and besides, a large amount is rejected or drawn out, and left beneath their feet. Particularly is this the case with animals fed in racks instead of troughs. — *Olive Branch.*

TO BUILD A POLE BRIDGE.

MR. EDITOR: Put your sleepers so that the upstream side of your bridge will be a little the lowest. This, in case of overflow, will cause the current to press the floor down, instead of lifting it. Having laid down your poles or puncheons for floor, put a strong pole across each end of them. Let the last-mentioned poles be long enough to reach across the bridge, and extend some little distance on each bank. With a heavy mall drive two strong stakes near each end, so as to cross above; then lay two other heavy poles in the forks formed by the crossing of the stakes. These last poles will not only serve for banistering, but will confine the bridge to its place, unless the water rise high enough to let them out of the forks. The same plan is a good one to confine rails or puncheons on a causeway subject to overflow. — *Southern Cultivator.*

POTASH A PROPER FOOD FOR GRAPE-VINES.

Having, last year, seen it stated in a paper, that the ashes of grape vines contained a large amount of potash, I caused three vines, of the same size, to be planted in boxes filled with equal quantities of earth, in which I noted the following results:—

No. 1 was supplied, when necessary, with pure water, and in a given time, increased six inches in length. No. 2 was watered with a solution of whale-oil soap, and in the same length of time acquired nine inches of growth. And No. 3 I watered with a solution of potash, and within the same period as above, it grew eighteen inches in length!

By the beginning of November, No. 1 and No. 2 dropped their leaves, and showed no signs of fruit; whereas, No. 3 retained its leaves three weeks later, and in the course of the season shot forth several

bunches of fruit, which, of course, were not suffered to grow. This shows the importance of knowing what kinds of salts go to form wood and fruit, in order that we may apply such manures to the soil as the vine or fruit-tree requires.

I wish we could have full analysis made of our great staple, Indian corn, including the grain, cob, stalk, and blades. — *Correspondent of the American Agriculturist.*

PRESERVING SCIONS.

Scions should be cut at any convenient time from October until the buds begin to start. When cut in the fall, bury them in light soil. When cut in winter, they may be saved in good condition, in the following manner: Take a tight box, and wet it inside and out a few times, that the boards may become saturated with moisture. Then put moist sawdust, moss, or earth, in the bottom, or a moist mat or cloth will answer. Lay in the scions; the larger the quantity, the better they keep. Place a moist mat or cloth over them, cover the box tight, and set it in the cellar. During winter, keep the mat on the top a little moist, and moisten the sides of the box, about once a month. Do not apply water to the scions, as much moisture is injurious; only keep them in a moist atmosphere. As warm weather comes on in the spring, it may be necessary to moisten the mat and the sides of the box more frequently. In this way scions may be well kept from October to July. Some often apply water to the scions, and drown them, or cause them to start before set.

For the New England Farmer.

AGRICULTURAL SOCIETY IN NEEDHAM.

MR. EDITOR: At a meeting of farmers of this place, held at the Town Hall, in October last, a committee was chosen to report a plan and constitution for an Agricultural Society. The committee subsequently made their report, and last evening the organization of the society was completed by the choice of the following officers, viz.: Col. Warren Dewing, President; Messrs. John Bird and Otis Sawyer, Vice-Presidents; E. K. Whitaker, Secretary; Daniel Kimball, Treasurer; and Messrs. W. Flagg, W. Pierce, W. M. Stedman, W. A. Kingsbury, R. Ware, J. Fuller, Jr., and T. Kingsbury, Directors.

The object of the society being the improvement of the town in its agricultural interests, a correspondence and coöperation with similar societies, elsewhere established, is respectfully solicited.

NEEDHAM, Dec. 30, 1848.

"Oak leaves," says Thaer, "are not easily decomposed, and contain an astringent matter, which is highly injurious to vegetation as long as the leaf remains undecomposed."

ACKNOWLEDGMENTS.

From Mr. Aaron Sanborn, Hampton Falls, N. H., a barrel of *Red Russet* apples, not yet in use. By the kindness of Mr. S., we have had a few of these apples before, and they were in use in April and May. In size, form, color, quality, and time of keeping, they

seem to be intermediate between the Baldwin and Roxbury Russet. We find it to be an excellent grower, and it is called a good bearer. Promising, but not yet fairly tested.

Of Mr. John M. Ivers, Salem, a variety of apples. *Aunt Hannah* is of excellent flavor, about equal to the famous Newtown Pippin, and it succeeds better in New England, but it does not keep so well. As it is rather small, it is better for the private garden, than for the market. *Barker's Seedling*, a small, beautiful, red apple, of fine quality. Michael Henry Pippin, not yet in use. *Mela Carla*; this holds the first rank in Spain, but here it is coarse and inferior.

From Charles Downing, Esq., Newburg, N. Y., a box of fine specimen apples. As some are not in use, and we have examined only a few, we will report on them at another time.

Of Mr. Oliver Atkinson, Lynn, a very handsome, fair, and excellent sweet apple. New and promising.

Of Mr. J. S. Draper, Wayland, the Echassery pear, sometimes improperly called the Ambrette. Small, but hardy, productive, and excellent. This is usually fine, while most winter pears are very uncertain.

To Mr. A. H. Ernst, of Cincinnati, O., we are much indebted for various works containing the charter, constitution, by-laws, reports, essays, &c., &c., of the Cincinnati Horticultural Society.

NOTICES OF PUBLICATIONS.

ALLEN ON THE GRAPE. — J. Fisk Allen, Esq. has just got out a new edition of his work on the grape, very much enlarged and improved, forming a neat bound volume, embellished with beautiful engraved illustrations, and greatly improved by valuable communications from distinguished vine-growers, in different parts of the country, on the cultivation of the grape, and a list of the best varieties. For this country, this is decidedly the best work extant. It is strictly practical, and by one of the most successful grape culturists in the country.

MESSRS. HOVEYS' CATALOGUE OF PEARS. — This contains a descriptive list of seventy-seven natives, and five hundred and three foreign pears, in separate tables. These enterprising gentlemen have long devoted much attention to collecting, from different sections of this country, and from Europe, various kinds of pears, and proving, arranging, and describing them.

COLMAN'S CONTINENTAL AGRICULTURE. — The last two numbers of Mr. Colman's European Tour have just been published in one volume. It embraces the agriculture and rural economy of France, Belgium, Holland, and Switzerland. This work is practical, and very interesting, particularly as it treats of those countries that rank high in agricultural improvement. Mr. Colman's clear and beautiful style gives additional charm to any work.

BOSTON ALMANAC FOR 1849. — This neat and valuable annual has again made its appearance. Among the improvements is a map of Boston and the vicinity, (about twenty miles around,) engravings of the

different school-houses, history of schools, &c. It contains a large amount of matter highly useful to any one in Boston, or occasionally visiting the city on business.

Address of General Josiah Newhall, Lynn, before the Essex Agricultural Society, is a very sensible discourse, containing much practical instruction, as might well be expected from the author. We publish an extract from it.

THY WILL BE DONE.

The following beautiful and pious effusion is from a memoir of Miss Alexander, the daughter of the late Bishop of Jerusalem :

My God, my Father, while I stray
Far from my home on life's rough way,
O, teach me from my heart to say,
Thy will, O God, be done.

If thou shouldst call me to resign
What most I prize, — it ne'er was mine, —
I only yield thee what was thine :
Thy will, O God, be done.

E'en if again I ne'er should see
The friend more dear than life to me,
Ere long we both shall be with thee :
Thy will, O God, be done.

Should pining sickness waste away
My life, in premature decay,
My Father, still I'll strive to say,
Thy will, O God, be done.

If but my fainting heart be blest
With thy sweet Spirit for its guest,
My God, to thee I'll leave the rest :
Thy will, O God, be done.

Renew my will from day to day ;
Blend it with thine, and take away
All that now makes it hard to say,
Thy will, O God, be done.

And when on earth I breathe no more
Thy prayer, oft mixed with tears before,
I'll sing upon a happier shore,
Thy will, O God, be done !

THE OLIO.

Science has sought, on weary wing,
On sea and shore, each mute and living thing.

AN AWFUL PAUSE. After the clergyman had united a happy pair, an awful silence ensued, which was broken by an impatient youth, exclaiming, "Don't be so unspeakably happy !"

The miser starves himself, that his heirs may feast.

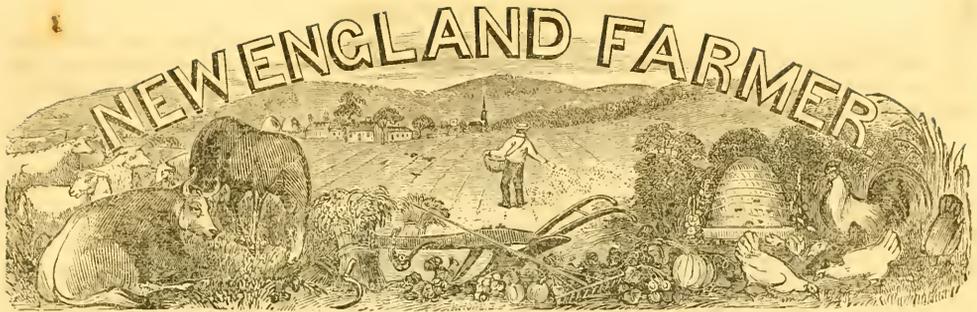
THE PLOUGH. Its one share in the bank of earth is worth ten in the bank of paper.

"I say, neighbor Hodge, what are you fencing up that are pasture for? Forty acres of it would starve a cow !" "Right," replied Hodge, "I'm fencing it up to keep the cows out."

The farmer feeds all.

A beautiful flower is the type of mortality. It flourishes a few days, then withers, dies, and is seen no more.

Nothing circulates so rapidly as a secret.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, JANUARY 20, 1849.

NO. 3.

S. W. COLE, Editor.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

COLLECTION OF SEEDS, SCIONS, &c.

THE farmer is always busy. He has hardly time to secure his crops, and prepare for winter, before the old year is gone, and the new announces the beginning of another campaign, and he must give his attention to future operations. The winter is a favorable time for collecting seeds, scions, potatoes, and all new, rare, or excellent articles, with a view to agricultural improvement.

Many of these things may be collected conveniently during the winter, as a person is travelling about the country, or meeting with those who can supply improved productions. If all these things are neglected until they are wanted in the spring, the most of them will be postponed one year longer; for it is impossible to do many things at one time.

The most economical and the most pleasant of all modes of improvement, is the procuring of superior productions. The best of seed costs but a little more than the poorest; and from a small quantity, enough can soon be obtained to supply a whole farm.

A single potato, of superior quality, may be multiplied, in a few years, so as to furnish seed for the whole farm, and produce a large increase in the crops, or add twenty or twenty-five per cent. to their value by extra quality.

We once gave a friend a paper of superior parsnip seed, and he remarked, after trying the quality of the produce, that the seed was worth a dollar to him. The cost of the seed was only a few cents. Another, to whom we gave an ear of corn, observed that it was worth several dollars to him, as by it he had improved his whole crop. A single scion may be increased, in a few years, so as to furnish means for the improvement of a large orchard. From one scion of a new and superior cherry, set rather late in spring, we have fifteen or twenty trees in bud, and they may be soon increased to thousands.

PREPARATION OF FRUIT SEEDS.

The seeds of all the principal species of fruits, if not sowed in fall, should be prepared early in winter, or by midwinter, by mixing them with moist sand

or loam, and keeping them in that condition. They may be kept out of doors, under a shelter, or in the cellar. The operation of the frost on them is not necessary, excepting on plum and cherry stones, when kept dry till winter.

When cherry and plum stones are put into loam, as soon as separated from the meat, the effects of the atmosphere and earth destroy the cement that holds the stone together. We have thousands of these trees from stones never exposed to frost. When they become dry, and firmly cemented together, and there are but a few months for them to lie in loam, and the weather cold, so that there is less action on them, it is best to expose them to frost.

Peach stones, for spring planting, we bury in earth, below the action of frost, or put in earth and set in the cellar by the last of winter, or before; then they are ready to plant at any time till June; but if exposed to frost at the surface of the earth, or in boxes, they open and sprout too early.

NORFOLK AGRICULTURAL SOCIETY.

We are pleased to learn that a movement is made to form an Agricultural and Horticultural Society in Norfolk county, and that the prospect is very encouraging. There are many gentlemen that will most cheerfully aid in this cause, and their intelligence, energy, and zeal will be a sure guaranty of success. They will devote time and talent to the enterprise, and some, of their abundance, will contribute liberally to the funds of the association.

One important consideration presents itself to the citizens of every county in this state in which there is no agricultural society. They contribute equally to the general fund, from which liberal donations are paid to societies in other counties.

But a stronger and more noble motive for action in this useful undertaking, is the great and happy results from such associations, in diffusing useful information, and encouraging improvements that have the most salutary effects on the prosperity of the country, and those engaged in the various branches of cultivation.

In complying with the request of W., we take the liberty to say that the gentleman is E. K. Whittaker,

Esq., one of the prime movers in this useful purpose, who is zealously laboring for its accomplishment. May complete success attend all such laudable efforts.

For the New England Farmer.

MR. EDITOR: A letter was recently addressed to General Dearborn, Mayor of Roxbury, by Elijah Perry, Esq., of Dover, asking for his opinion upon the subject of the formation of an Agricultural Society in the county of Norfolk.

The reply of General Dearborn has been placed in my hands, a copy of which I take the liberty to send you for publication; and would further add, that a call, now in circulation, for a public meeting, to be holden at Dedham, to carry into effect the object proposed, will be forwarded to you in the course of a few days. W.

HAWTHORN COTTAGE, ROXBURY, Dec. 18, 1848.

DEAR SIR: Your letter of the 13th inst. has been received with great pleasure, for I fully concur with you in opinion, as to the expediency of establishing an Agricultural Society in the county of Norfolk; — but horticulture should also be included; for that branch of rural industry is very important in many of the towns, and is annually becoming much more so, from the increase of population, in such as have manufacturing establishments, and the rapidly extending bounds of the commercial emporium of the commonwealth.

The improvements which have been made in all the departments of husbandry and gardening, in Great Britain, France, Holland, and the United States, within the last half century, are the results of experiments performed under the patronage of associations, founded by the proprietors and cultivators of the soil.

Whatever services I can render, in the foundation of an AGRICULTURAL AND HORTICULTURAL SOCIETY, are at the command of those gentlemen who may be disposed to coöperate in measures for the speedy organization of such an institution.

The culture of the earth is the basis of all the progressive movements of man, in the march of civilization. It is the precursor of letters, science, the arts, manufactures, navigation, and commerce; and those nations have ever been, and ever will be, the most enlightened, prosperous, and powerful, which have illustrated by experiments, or may evince the greatest disposition for the development of all those branches of intelligence, and of the industrial arts.

The people of this republic have natural resources and advantages for becoming the most distinguished in individual and national independence, wealth, and happiness, and are beyond those of any other portion of the globe. It is, therefore, the imperious duty, and for the direct interest of every citizen, to zealously act as a determined co-laborer, for rendering available, both for his own and his country's prosperity, the various, diversified, and immense sources of advancement in all the subdivisions of labor and intellectual proficiency which are at his command.

The Americans are eminently industrious and enterprising, and they have only to avail themselves of the infinite blessings which their vast territory and excellent institutions of government afford, to become the admiration of the world, from the lofty position which they can, must, and will obtain within the next fifty years.

Allow me to suggest the propriety of obtaining signatures in as many of the towns in the county as possible, to a recommendation, and invitation to a meeting to be holden in Dedham, in the month of February next, for taking into consideration the ex-

pediency and importance of organizing an Agricultural and Horticultural Society. With assurances of great respect,

Your most obedient servant,

H. A. S. DEARBORN.

ELIJAH PERRY, Esq.

OHIO CHEESE.

Large quantities of cheese are brought from Ohio to this market, and it is generally of excellent quality; and we are pleased to learn, by the article which we copy below, from that excellent paper, the Ohio Cultivator, that this branch is so profitable in that state.

Mr. H. Dean, an extensive dealer in dairy productions, in Faneuil Hall Market, had this season, from Ohio, one thousand cheeses, made to order, in size, form, and quality, in English dairy style; and they ranked among the very finest from any section of the country. A friend at our elbow, an excellent judge, says he never saw any finer cheese; and the extra price at which they sold was an evidence of their superiority. Mr. Dean had from the same state over three hundred boxes of pine-apple cheese, of the greatest excellence.

We name these facts to show the importance of skill in the various branches of agriculture. In these cases, articles of superior quality pay the farmer a good profit, and yet bear the expense of transportation nearly a thousand miles, pay the dealer well, and the consumer is pleased in obtaining a superior production at so fair a rate.

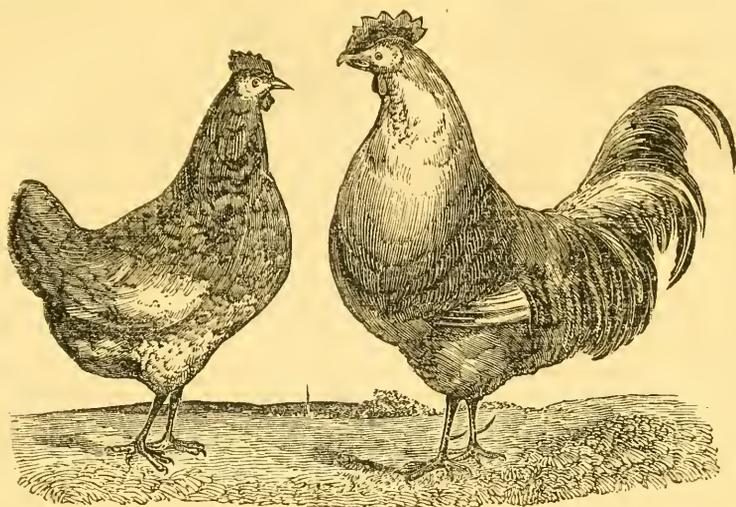
PROFITS OF DAIRY FARMING. — For a year or two past there has been a rapid increase in the dairy business of Ohio — especially in the manufacture of cheese — and we believe that this branch of farming is found more profitable than most others, when rightly managed. The following is one among many items of the kind that could be furnished.

Orrin Willson, Esq., of Huntsburgh, Geauga Co., O., has kept seventeen cows, only, the past season, and without any very extra keeping, has realized from his dairy the sum of six hundred and six dollars, which gives the sum of thirty-five dollars and sixty-four cents each cow. This does not include the calves sold, or hogs fattened from the dairy, and a quantity of butter and cheese yet on hand.

THE FARMER.

He is a public benefactor, who, by the prudent and skilful outlay of his time and money, shall make a single field yield permanently a double crop; and he that does this over a square mile, virtually adds a square mile to the national territory; nay, he does more; he doubles to his extent the territorial resources of the country, without giving the state any larger territory to defend. All hail, then, to the improvers of the soil! Health and long life to their fortune! May their hearts be light and their purses heavy; may their dreams be few and pleasant, and their sleep the sweet repose of the weary! May they see the fruits of their own labor, and may their sons rear still heavier harvests!

Most mountains present their precipitous faces to the sea and their slopes to the land.



DORKING HENS.

The Dorking is the most distinguished race of hens in England and in this country. They are from the town of Dorking, in that country, where great pains are taken in their breeding, and large numbers are sent thence to different parts of the kingdom, and to other countries. These fowls are of a large size, with short, stout bodies, and short legs. They generally have five toes, and whole chapters might be written on the subject of this extra toe being indispensable to constitute a genuine Dorking, and a very good case made out on either side. The color varies from pure white to brown, and to black clouded with white.

Dorkings are mild, peaceable fowls, bearing confinement to a limited range with patience, especially when brought up in this way from their *chickenhood*. The biddies are good layers, kind and affectionate mothers. Their eggs are pure white in shell, and the outer meat of a very fine, delicate texture, and delicious flavor, excelling the dark-colored, and coarse, unsavory eggs of the large India fowls. The flesh is noted for its fine texture, juiciness, and excellent flavor. They rank with the very highest in this respect.

The protector is usually adorned with varied and beautiful colors; he is of a stately and dignified deportment, not naturally pugnacious, avoiding offensive warfare, and the invasion of others' rights, but fighting desperately in defence of his own prerogatives, and for the protection of the subjects of his dominions.

The above engraving was drawn from a noble pair of fowls, which we have directly from the importer. The protector weighed ten pounds, and notwithstanding his large size, he is remarkable for his agility. Lest some persons should take the trouble to send orders for these fowls, we would remark, that we have sent them to a distant friend, and we have none of this race on hand.

After all that is said of the Dorkings, or any other

fine races of hens, selections may be made from our native hens that fully equal them, all things considered, though these noted breeds may excel in some peculiar properties, as the Polands for beauty and non-sitters, the Bantams for ornament, small size, and harmlessness in gardens.

POTATOES FROM SEED.

Most, if not all, of our valuable potatoes have been raised from seed. With this valuable esculent, as with fruits, from raising numerous kinds from seed, we occasionally find an excellent new variety, which may in some respects excel other kinds in general use.

This should lead farmers to make experiments, as potatoes may be raised from seed, with as little trouble as fruit-trees, and it takes far less time to test a new variety; as the potato will come to perfection in less time than a fruit-tree will attain sufficient size to set out as a standard.

We commenced this article with a view of recommending that the seed should be prepared the same as seeds of fruit-trees, instead of sowing them dry in spring. Put the seeds in damp sand or loam, set them in the cellar, and keep them slightly moist till the time of sowing.

If kept dry, and sowing be delayed till warm weather, only a part of the seeds will vegetate; but if sowed dry in March, they will generally vegetate freely, as they lie a while in the earth, before vegetation commences, which serves as a preparation.

If the seeds be put into sand late in winter, or early in spring, it will be in season. We received a lot of seeds last year, rather late in the season, and we put them into moist loam the last of March, and sowed them the last of April. They came well, and by extra culture we raised, the first season, some potatoes of medium size, say four inches long, and nearly two in diameter.

For the New England Farmer.

HAS THE STOCK ANY INFLUENCE ON THE QUALITY OF THE FRUIT OF THE GRAFT?

MR. EDITOR: In remarking on the "Healy Apple," in the first number of the Farmer, you observe that "it partakes of both the fruit of the scion and the stock," and that "this is the case with many fruits." I have noticed a similar opinion advanced respecting some other apples, in our agricultural papers, and have found it to some extent prevalent among practical farmers.

Is this opinion a correct one? In examining the best writers on vegetable physiology, they will be found to be arrayed against it. While they admit that the stock has often a decided influence on the vigor or fertility of the graft, as must be evident to every close observer, they deny that it has any on the nature and quality of the fruit.

Lindley, in the Introduction to his Guide to Gardening, — which Introduction is endorsed by Loudon with the highest encomiums, — says, "Those who fancy that the quince, for example, communicates any of its austerity to the pear, can scarcely have considered the subject physiologically, or they would have seen that the whole of the food communicated from the albumen of the quince to that of the pear, is in nearly the same state as where it entered the roots of the former. Whatever elaboration it undergoes must necessarily take place in the foliage of the pear, where, far from the influence of the quince, secretions natural to the variety go on with no more interruption than if the quince formed no part of the system of the individual.

A few years since, in conversation on this subject with Dr. Gray, the distinguished Professor of Botany in Harvard University, I found that his views coincided precisely with those I have quoted; he had no belief whatever that the fruit of the graft was in any way affected, in its quality, by the stock.

It would seem, then, that we have science and experience at variance on this question; or rather, I should say, science is here opposed to what is, by some, alleged as experience, for I have never been able to satisfy myself that the cases which are cited in proof of certain fruits, partaking of the character of both the fruit of the scion and the stock, are really entitled to be considered as authorities and settling the question. I have never seen such a case; and I know of no fruit that has such a character. It seems to me far more reasonable to suppose that there must be some mistake or false judgment in those who pronounce upon the fruit supposed to possess this double character, than that the laws of vegetable physiology should fail in their uniformity. Besides, these supposed cases are generally of a vague and an equivocal character; the fruits of the graft have only some slight resemblance to those of the stock; but there is no instance of a decided and marked character, such as an acid apple being changed to a sweet one, by being grafted on a sweet apple stock. Such an instance, if established, would settle the question, and I once supposed that I had met with it.

A friend of mine presented to me what he called the Sweet Golden Russet, and stated that it was produced by grafting the Golden Russet, which is rather an acid apple, upon an old stock of a sweet apple-tree. And in confirmation of his account, he stated that his father set the grafts, as Golden Russet grafts; and that those of the natural branches of the tree in which they were set, continued to produce sweet apples. He was positive as to the fact of the transformation. The apples were of a similar shape, size, and color with the Golden Russet, but they were sweet. I found, however, on inquir-

ing among his older neighbors, that there were formerly many trees in the town that bore a Sweet Russet, and those who knew the fruit pronounced this pretended Golden Russet to be identical with it; so that no doubt was left on my mind that this was the fruit grafted by mistake as the Golden Russet. Are there not many mistakes of the same kind made in grafting, by which many persons are innocently deceived?

Again, if such changes take place in the quality of fruit arriving to the character of the stock, what certainty would there be, in grafting to any particular variety, that we should have that variety when the graft came into bearing? But does any nurseryman have doubts, when he grafts or buds to the Baldwin for example, that he will have a Baldwin apple-tree? He takes a row of seedling stocks, — suppose one hundred or five hundred, — and inserts buds or grafts of the Baldwin in every one of them. These stocks, if they were allowed to grow up, would doubtless produce fruit of various descriptions, sweet and sour, bitter and insipid; summer, fall, and winter; but the character of the Baldwin grafted or budded to them is not changed; it remains the same; and it is known and identified by every person who has ever tasted it.

We should expect changes, and great changes too, if the stock has an influence on the fruit of the graft; for if a change takes place from this cause in any one case, why should it not in other cases? But it is said there are differences in Baldwins. But may these differences not result from other causes? A poor soil makes a diminutive fruit, a rich soil a large one. The north side of a tree makes a green Baldwin, the south side a red one; and the latter has a pleasanter flavor, from the influence of the sun, than the former. Many apples, too, pass for Baldwins that are only such in name; and the conclusion is at once drawn, that it is the stock that made the difference, when the stock has never come in contact at all with a graft of the Baldwin.

But I will conclude by expressing the hope that this question may be further discussed in your journal, and that those who think they have facts to warrant the conclusion that the stock does influence the quality of the fruit of the graft, will produce them, with such specifications as will give us all that is to be known on the subject, and then produce the fruit itself.

ALLEN W. DODGE.

HAMILTON, Jan. 8, 1848.

EDITORIAL REMARKS.

Our friend has presented this subject in a very clear and candid manner, and brought strong arguments and high authorities to support his position. Those who have occasionally heard or read our views on this subject are aware that they are in the affirmative of the question at the head of this article. We have but a few words to say on it at present; but as it is now fairly before our readers, we should be pleased to have any facts that throw light on the subject. Our remarks on the "Healy Apple" were founded on the statement of Mr. Healy, and that of a friend who had long been acquainted with the Healy Apple, and that on which it was grafted. We intend to investigate that subject another season by examining that fruit on the trees.

The earth is believed to increase in heat a degree in every fifteen or twenty yards in depth.

For the New England Farmer.

TO CULTIVATE PEACHES AT THE NORTH.

MR. EDITOR: There are few persons to whose taste the peach is not a most delicious fruit; and certainly, at the season of its maturity, when autumnal complaints, such as dysentery and fevers, prevail, there is none more conducive to health. There is a tradition of a peach-tree, the fruit of which, if eaten, conferred immortality. But as none of the trees of this variety have been received in this country, the writer will content himself with pointing out to his friends who reside a little to the north of a line, beyond which the peach is not able to withstand, in the orchard, unprotected, our wintry climate, how they may cultivate successfully, on a small scale, for their own use, with a little care, some of the fine early varieties. For this purpose, select a few trees budded on plum stocks, of the best early sorts, and set them in a sheltered situation, with a southern aspect. After having grown one season, in November cut back one third or more of the growth evenly over the whole tree. Pursue this course annually. On the approach of winter, cover the roots with leaves, to protect them from extreme frost. Bend in the branches towards the centre, and carefully tie them. Having obtained some branches of hemlock, or other evergreens, set them in the ground around the tree, and bring them together over the top, and tie them snugly around the tree. In this situation the trees may stand till all danger from frost is over, when their covering may be removed, and the branches released will return to their natural position, when they will soon put forth blossoms and leaves, and produce, in due season, a crop of fruit; thus amply rewarding the little care bestowed on their protection.

JOSIAH NEWHALL.

LYNNFIELD, Jan. 1849.

EDITORIAL REMARKS.

We are much pleased with Gen. Newhall's mode for peach culture in the north. The plum stocks will render the trees dwarfish, and more hardy from a slower growth. Slow-growing peaches, that produce the same from seed, are also adapted to this mode of culture. We have no doubt that, by this plan, peaches may be raised in the northern part of the Union. The warm sun, on mild days in winter, prepares the peach for destruction by frost. Against this, the covering of evergreens would be an effectual preventive. They would also retard blossoming in the spring until the season of frost is past. There is less danger from late spring frosts in the north, than in regions farther south, as the weather is more uniform, and the change from winter to spring more rapid and regular.

For the New England Farmer.

PRECISION IN AGRICULTURAL EXPERIMENTS.

MR. EDITOR: Mr. Colman, in his third report on the agriculture of Massachusetts, makes some just complaints of the want of precision among farmers in making their experiments. For instance, in regard to the effects of lime, to his inquiries whether they had used it, they answered in the affirmative; and to the further question, whether they received any benefit, they thought they did. When asked how much, they could not tell. They limed the whole piece alike; and he mentions a number of inquiries,

to which similar answers were given, which, as he says, proved just nothing at all. How often do we find, in agricultural journals, statements of the success of some particular experiments contrasted with that of neighboring fields, perhaps over a fence, and the like; and from thence an inference is drawn, so that the result exactly proved a favorite hypothesis. It is true such statements may have some little weight, but very small to what they would, if different portions of the same field were alternated with the same experiment, and the result an average of the whole.

I never was so much impressed with the importance of more discriminating experiments as when I was lately reading two volumes of the Patent Office Reports. I find, after wading through a huge mass of testimony respecting the rot in potatoes, no possibility of drawing any satisfactory conclusions from it. Now, it appears to me that where testimony shows such different results, in circumstances apparently the same, and these different results become numerous, the inference would be inevitable that some hidden cause, either alone or in connection with some visible ones, had an effect in producing these results; and where this proof grows so strong of the existence of some secret agent or agents, of potent energy, the great object of our researches ought to be to lift or penetrate the veil that hides these agencies from our sight.

I recollect, some years since, in reading an elaborate investigation on the subject of blight in wheat, by Mr. Colman, after mentioning some atmospheric agencies which evidently were connected with the blight of that year, he stated that some wheat equally exposed to these escaped, and he inferred a susceptibility to disease in some places more than in others. Ah! here is the poser; this susceptibility to disease, or, rather, as I should say, the incipient stage of the disease produced by causes out of sight, must be investigated, and the cause of it ascertained before we can render a true verdict.

But in these investigations, we not only need discriminating experiments, but we want a persevering energy, that never tires; for no subject, like agriculture, has so many, and so difficult problems to solve. Wind and water are always in motion. Various gases liberated from decaying vegetables, are always, in warm weather, floating in the atmosphere, and watery vapors combine with them, and when condensed by cold, may fall in dew on the leaves of plants, and either act as nutriment or poison, according to their quality. If brought to the earth by rains, they may, in addition to liberated gases, furnish food or poison to the roots.

Here, brother farmers, is the field of investigation set before us by Infinite Wisdom; and the same Wisdom has given us powers of mind sufficient to penetrate every mystery necessary for us to explore, in order to render earth a garden of vegetable life and beauty, whose trees and plants shall bow themselves under the weight of the most abundant and the best of fruit.

JOSEPH H. JENNE.

PERU, ME., Dec. 1848.

From the Plough, Loom, and Anvil.

SOME SUGGESTIONS ON THE ACTION OF PLASTER OF PARIS.

The following communication from Prof. Norton, of the school of chemistry applied to agriculture, is the best explanation we have seen of the action of gypsum, and of the reason why it acts powerfully on some soils, and is inert on others. Still, it seems somewhat wonderful that so small a *dust of it*, — half a bushel, in some cases, to an acre — scattered over

growing clover, in the spring, should so soon descend, and become incorporated with, and act upon, the soil; but so, it seems, it does.

NEW HAVEN, Dec. 11, 1848.

Hon. J. S. SKINNER.

Dear Sir: I have read with interest the various articles in the December number of your valuable journal; and desire to remark briefly upon one paragraph relative to the effect of plaster of Paris, or gypsum. This paragraph is upon the 369th page, and the essential part of it as follows: "Mr. Stabler states that land which had before been insensible to the action of plaster of Paris, when raised by clover, otherwise, to a certain degree of fertility, becomes alive to the influence of that cheapest of all fertilizers, where it will act at all; and this, like other facts and considerations that might be adduced, would seem to show that its action is *not due to its attraction of fertilizing powers from the atmosphere.*"

The idea that plaster of Paris acted wholly by the absorption of ammonia from the atmosphere, originated with the great German chemist, Liebig; and the sanction of his name has given it general credence. I believe in this matter, as in several others relating to agricultural science, he has erred through a lack of practical knowledge, and perhaps through the strong temptation to promulgate beautiful theories.

I think that experience points more plainly to at least a decided modification of his opinions. The instance above cited is one which the ammonia theory fails to explain. I at this moment recall one of a yet more decided character. I know of several localities, where, in adjoining fields, plaster exerts on the one a very marked influence, and on the other is of no use whatever. These two kinds of land are uniformly treated in the same manner, and always have been; yet this difference remains. There is no doubt but ammoniacal manures would do good on both of these soils; and yet, on one of them, the use of plaster never repays the outlay. Clearly we must look for some new explanation. This is to be found in the chemical composition of plaster. It is composed of lime and sulphuric acid, and is known to chemists as sulphate of lime. Now, sulphuric acid is well known to be a powerful manure on many soils, and it is unnecessary to praise lime. In the case of the two adjoining fields above mentioned, the soil of one was formed from a species of shale, which contained scarcely a trace of either of these substances; and that of the other from a rock which had a pretty good supply of both. The inference in such a case is irresistible. We find the soil known to be without the constituents of plaster benefited, while the other remains unchanged. Now ammonia should produce the same effect on both, if to supply it were the use of plaster. We must, therefore, conclude that the mineral constituents of the manure were of primary importance here.

Mr. Stabler's case is rather different. Here the soil must be brought up to a certain degree of fertility, and then plaster acts. This will not seem strange when we consider the composition of the soil; that ten or twelve mineral ingredients are requisite to fertility. Plaster only contains two of these; and if others besides be wanting, the addition of it will of course not supply them. But when they are added by green cropping or otherwise, the gypsum tells at once.

In all land, then, where plaster produces no decided effect, we may expect to find the constituents of that manure already present.

These are but hints upon a subject which would require very many pages for its full discussion.

Plaster undoubtedly has a strong tendency to the absorption of ammonia, and probably is often of benefit in that way; so that I would not so much condemn Liebig's theory, as simply unite another with

it; these two causes of benefit to the soil affording an explanation to almost every case of perplexity. Much is yet to be learned on this subject; but the above view will, I think, be found correct in its main features, as well as practical in its applications.

I enclose a copy of the last circular issued from our laboratory, as I cannot remember having sent you one before. We have a fine class now of ten students, and our numbers are increasing; but not so fast as the demand for instruction in agricultural science. We shall not be able to supply it in a long period, even if our numbers are more than doubled. I am, sir, yours, respectfully,

JOHN P. NORTON.

AGRICULTURAL CHEMISTRY.

No manure can be taken up by the roots of plants, unless water is present; and water or its elements exist in all the products of vegetation. The germination of seeds does not take place without the presence of air or oxygen gas.

Plants are found by analysis to consist principally of charcoal and acriform matter. They give out by distillation volatile compounds, the elements of which are pure air, coally matter, inflammable air, and azote, or the elastic substance which forms a part of the atmosphere, and which is capable of supporting combustion. These elements they gain either by their leaves from the air, or by their roots from the soil.

All manures from organized substances contain the principles of vegetable matter, which, during putrefaction, are rendered either soluble in water or acriform; and in these states, they are capable of being assimilated to the vegetable organs. No one principle affords the pabulum of vegetable life; it is neither chareal, nor hydrogen, nor azote, nor oxygen, alone, but all of them together, in various states and various combinations.

Plants require only a certain quantity of manure, and excess may be detrimental, and cannot be useful. Slaked lime was used by the Romans for manuring the soil in which fruit-trees grew. This we are informed by Pliny.

Nothing is more wanting to agriculture than experiments in which all the circumstances are minutely and scientifically detailed. This art will advance with rapidity in proportion as it becomes exact in its methods.

Discoveries made in the cultivation of the earth are not merely for the time and country in which they are developed, but they may be considered as extending to future ages, and as ultimately tending to benefit the human race; as affording subsistence for generations yet to come; as multiplying life, but likewise providing for its enjoyment.

Potatoes in general afford from one fifth to one seventh of their weight of dry starch.

One fourth part of the weight of the potato, at least, may be considered as nutritive matter.

The principal consumption of the carbonic acid in the atmosphere, seems to be in affording nourishment to plants; and some of them appear to be supplied with carbon chiefly from this source. Carbonic acid gas is formed during fermentation, combustion, putrefaction, and a number of operations taking place upon the surface of the earth; and there is no other process known in nature by which it can be destroyed but by vegetation.

It is usual to carry straw, that can be employed for no other purpose, to the dunghill, to ferment and decompose; but it is worth experiment, whether it may not be more economically applied when chopped small by a proper machine, and kept dry until it is ploughed in for the use of a crop. In this case, though it would decompose much more slowly, and

produce less effect at first, yet its influence would be much more lasting.

Manures from animal substances in general require no *chemical* preparation to fit them for the soil. The great object of the farmer is to blend them with earthy constituents in a proper state of division, and to prevent their too rapid decomposition. — *Selected.*

ORGANIC MATTER IN SOILS.

If we take a small quantity of soil, and heat it in a crucible, or on the blade of a caseknife, red hot, it immediately turns black, like wood coal, or charred wood. If the heat be continued, and the soil stirred in the crucible, it soon loses its dark color, and takes that of the earth operated on, like burnt brick. The matter consumed by fire is the remains of vegetable and animal substances in the soil, which are called *organic* matter, for they were produced through the agency of vitality and *organization*.

All organic combustible matter consists of four simple elementary bodies, which are variously combined in vegetable and animal mould. That part of plants, forest trees, and animals, which will make *coal* when properly burnt, is called *carbon*. It constitutes not far from one half of the dry weight of all plants and animals, exclusive of the bones of the latter and the earths that form ash in the former; the percentage of carbon in animals is less than in vegetables. It is carbon in muck and mould which renders them so dark colored. The two simple elements *oxygen* and *hydrogen*, that combine in the proportion of eight pounds of the former to one pound of the latter, and thereby make nine pounds of pure water, exist pretty largely in the organic matter of soils. The constituent elements of water and carbon, together form the main bulk, substance, and weight of all vegetables, and on an average more than eighty per cent. of all animals, beside their bones or shells. The other of the four elements in mould, and of course in once living beings, that slowly decay to form it, is called *nitrogen*. The air we breathe contains seventy-nine parts of this gas to twenty-one of oxygen. One hundred pounds of wheat straw contain only one third pound of organized nitrogen; the same weight of wheat, about two and a half pounds.

The transition of dead plants, that fall to the ground, is technically called *eremacausis*, a hard Greek compound word, which means "slow combustion," because, chemically speaking, slow rotting is not unlike slow burning. In this natural process of decay, the elements of water, *i. e.*, oxygen and hydrogen, fly off faster than carbon. Hence green plants and wood of a light color form brown mould. Like rotted manure, this substance is very variable in its agricultural value. This depends in no small degree on the quantity of ammonia, (a compound of nitrogen and hydrogen,) and of earthy salts which the mould possesses. Clean pine wood will form mould, but as it yields very little *ash* or organized *nitrogen*, its mould is of far less value than that made of peas, clover, oats, and corn. There is a great difference in vegetable mould, which the practical farmer should closely study. One variety may be extremely fertile; another, remarkably sterile. The leaves of forest trees form that which is of a medium quality. They should be gathered and treated as most of our readers know how.

We find a good many worn or washed plantations in our travels, that lack organic matter in the soil. The point we are studying in this, to us new climate and strange land, is, How shall the agriculturist cover these naked fields with a rich mould, drawing the elements thereof from the atmosphere and the subsoil, which appertain alike to each acre? Take good care of the surface water; plough deep; subsoil;

try peas and rye turned into the earth; and all crops that will serve to keep cattle, sheep, and swine, whose daily manure will give new organized matter, drawn from the air. On thin, poor soils, deep-rooted plants and trees will live, whilst those whose roots, like wheat, descend but a few inches, pine and die. The former find their necessary potash, soda, lime, magnesia, phosphorus, sulphur, chlorine, iron, and soluble silica, deep in the earth, which make the skeleton of a plant, and without which no carbon, oxygen, hydrogen, and nitrogen can be transformed and organized into vegetable tissues, however largely they may abound in simple mould and soil, or in the surrounding atmosphere. — *Southern Cultivator.*

For the New England Farmer.

AGRICULTURAL EDUCATION.

MR. EDITOR: A great deal has been said and written, yet but little done, in regard to schools or seminaries of learning for fitting boys and young men, by education and practical knowledge, for the business of farming. Every intelligent cultivator acknowledges the great aid which science gives to agriculture, and the variety and extent of the sciences that are made subservient to this profession; yet he is aware that the best practical knowledge is equally important.

Now, the important question is, how shall the young man learn the science and art of farming, or how shall the parent educate his boy properly for this calling? Schools have been established for these purposes on various plans, and under favorable and unfavorable auspices. Some have flourished, others have faded.

This subject has been agitated in several of the state legislatures, and in some, measures have been taken to encourage agricultural education; but as it is a novel subject, it has been difficult to agree on any plan, so that but very little has been done by legislative aid. As it is of the highest importance, and a subject in which the whole community have a deep interest, it is hoped that it will be investigated by our legislative assemblies, and by the correspondents of agricultural journals, until some effective measures are taken to educate and fit young men for agricultural pursuits, as well as for other professions.

A FRIEND TO AGRICULTURE.

EDITORIAL REMARKS.

Our columns are open for discussion and the investigation of this subject, and we should be happy to hear opinions on the best plans for agricultural education, and the importance of our legislatures taking some measures to promote so useful an object.

LUCERN, OR FRENCH CLOVER.

A number of experiments have been made in cultivating lucern in this country, but not with sufficient success to lead to its general use. It is very difficult to suit as to soil, and it requires much care and attention, the first season, in weeding, stirring the soil, &c. We find that those who have tried it neglect its culture, which shows that it is not well adapted to our climate, or we have but few soils that suit it. It will doubtless succeed better in the Middle States and other mild climates, as it occasionally winter-kills here. We copy the following from Colman's

account of French agriculture, in his late publication.

LUCERN.—Lucern is cultivated very extensively in France, and, indeed, may be considered as their great dependence for green fodder. It is a general opinion that no plant will, in this respect, yield a greater return. Indian corn will yield more green food, but a crop of lucern may be got much earlier. Three things are important in the culture of it; first, that the soil on which it is sown should be rich; second, that it should be deep, good in the subsoil as in the surface soil; and third, that it should be kept clean from weeds. On my visit to an admirably managed farm, about twenty miles from Paris, where every thing indicated the most exact care and attention, and which might almost be cited as a model farm, the farmer informed me that his lucern, which he cultivated largely, was usually cut three times, and gave him at the rate of fourteen tons to an hectare, made into hay. A French hectare is about two and a half acres, and this would be, therefore, a yield of more than five and a half tons to an acre. A dry season is particularly unfavorable to it. It requires a rich, but suffers from a wet soil.

Lucern is sometimes sown among wheat or barley; but the most certain mode of securing it against weeds, is to plant it in narrow drills, and keep it clean by the hoe for a time, until it becomes well established. About eight pounds of seed—though this is deemed a large allowance—are sown to an acre. It will bear cutting three times a year, and will endure in the ground eight to ten years. It does not come to perfection the first year; and the circumstance of its being ordinarily continued in the ground for a term of years forms an objection to its culture, with those who wish to pursue a regular rotation of crops. Gypsum is applied to lucern with the same success as to clover; and the best farmers advise to harrow it in the spring, and, indeed, after each cutting, excepting the last cutting in the autumn.

CHOOSING A HORSE.

There is much pleasure and profit in the service of a good horse, but very little of either in a bad one. There are many mean horses that make a good appearance when taken from the hands of a jockey. In purchasing a horse, then, trust not to the seller's words; let your own judgment, or that of a friend, be chiefly relied on. See that he has good fore feet and joints, and that he stands well on his legs. See that his fore teeth shut even; for many horses have the under jaw the shortest; these will grow poor at grass. See that his hair is short and fine; for this denotes a good horse. Observe his eyes, that they are clear and free from blemish— that he is not moon-eyed or white-eyed; for such are apt to start in the night. A large, hazel-colored eye is the best.

Look at his knee; see that the hair or skin is not broke, for this denotes a stumbler. Take care that his wind is good; for a trial of this, let him be fed on good hay for twenty-four hours, take him to water, and let him drink his fill, placing him with his head the lowest; if then he will breathe free, there is no danger. See that his countenance is bright and cheerful; this is an excellent mirror to discover his goodness in. If his nostrils are broad, it is a sign that he is well winded; narrow nostrils, the contrary.

See that his spirits are good, but that he is gentle and easily governed; not inclined to start. In travelling, mind that he lifts his feet neither too high nor too low; that he does not interfere or overreach, and that he carries his hind legs the widest. See that he is well-ribbed back, and not high-boned. The size may be determined by the purchaser. Age from five to ten is the best. There are many tricks

practised by jockeys to make horses appear young, but it is not consistent with the size of my book to detect them; all I would say is, that horse's teeth, when young, are wide, white, and even; the inside of their mouths is fleshy, and their lips hard and firm. On the contrary, the mouth of an old horse is lean above and below; the lips are soft and easily turned up; their teeth grow longer, narrower, and of a yellow color.— *Selected.*

THE HORSE'S EYE.

I will now inform you how, for certain, you may know whether a horse has a strong and good eye, or a weak eye, and likely to go blind. People in general turn a horse's head to a bright light to examine his eyes. You can know very little, by this method, what sort of an eye the horse has, unless it be a very defective one. You must examine the eye first, when the horse stands with his head to the manger. Look carefully at the pupil of the eye, in the horse; it is of an oblong form; carry the size of the pupil in your mind, then turn the horse about, bring him to a bright light, and if, in the bright light, the pupil of the eye contracts, and appears much smaller than it was in the darker light, then you may be sure the horse has a strong, good eye; but provided the pupil remains nearly of the same size as it appeared in the darker light, the horse has a weak eye; therefore have nothing to do with him.— *Old Almanac.*

GRAFTING THE APPLE INTO THE PEAR.

Has any one in this section ever tried the experiment of grafting the apple into the pear? A friend of ours informs us that he once met with a tree of this kind in the gardens of a friend in England, and that the apples had a peculiar flavor, somewhat like a pear; and whether the flavor was peculiar to the variety of apples, or whether it was occasioned by the influence of the stock, he was not able to say.

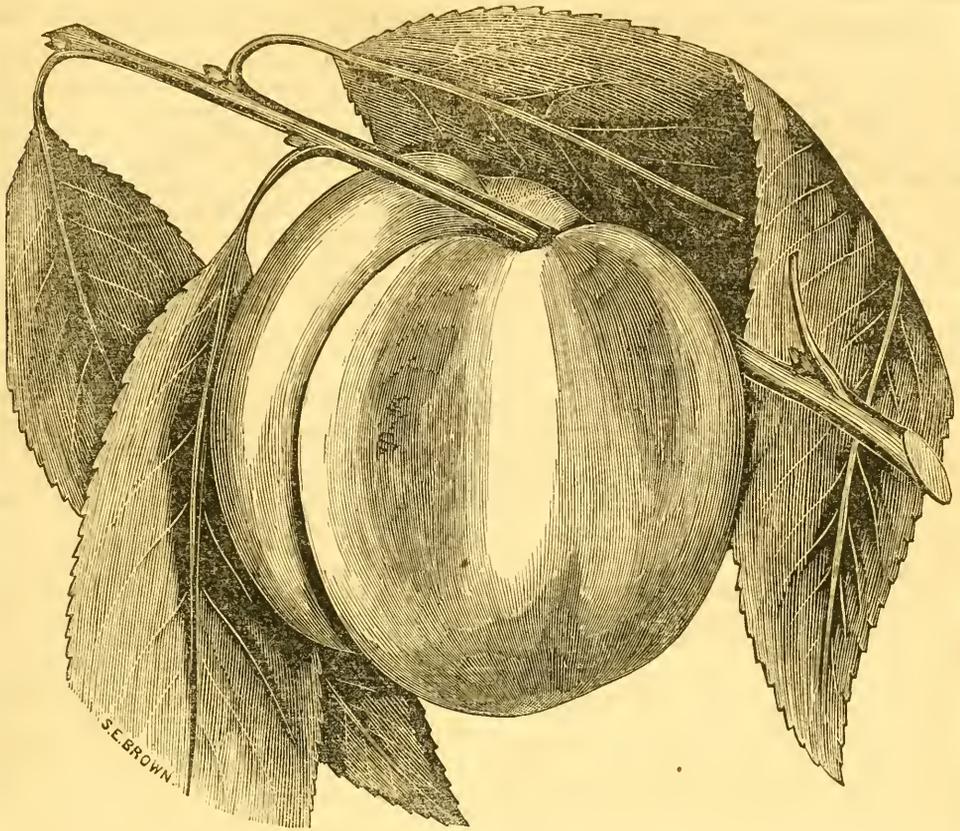
As a general thing, a pear stock is more valuable to engraft pears upon than apples; but as an experiment in ascertaining what influence such a stock may have upon the graft, it may be interesting.

The pear, unless attacked by the modern disease called the blight, will live longer than the apple-tree generally does; and it is possible that the apple graft, if the union is not too uncongenial, may be the means of prolonging the duration of the variety. Little, or indeed nothing, is known in regard to that at present.— *Maine Farmer.*

REMARKS BY THE EDITOR OF THE NEW ENGLAND FARMER.

We never saw or heard of the apple growing on the pear, until we made the experiment incidentally last spring. In grafting and planting out in the nursery a lot of apple stocks, among which were a number of pear stocks, some of the latter were grafted with apple scions, and set out without being recognized as pears.

On examining them in the summer, we noticed that six or eight scions had been set in pear stocks, which was indicated by suckers from the root. The scions on the pear were nearly as large, on an average, as those on the apple. We let them remain for experiment. On a part of them, we left a pear sucker to grow with the apple scion, to save the stock in case the apple should fail.



THE PEACH.

The peach is the most luscious of all fruits, and it is adapted to extensive culture. It is raised to a moderate extent in the Northern and Southern States, and it seems admirably adapted to the middle region of our country, where there are produced on some single farms ten to twenty thousand bushels a year.

In the north, this fruit is rather uncertain, not so much from the destruction of the trees by severe winters, — though this occurs occasionally, — as from the loss of buds; and these would not be so liable to be destroyed, were our winters of even temperature; but in the coldest months in the year, we sometimes have a spring-like day, or a week of mild weather, which starts the buds, and renders them very susceptible of injury from cold that suddenly ensues.

The interesting communication of Gen. Newhall, on another page, shows how to obviate this difficulty, in a small way; and by the means he recommends, the peach culture may be extended one hundred and fifty miles north of its present limit. We ought also to make improvements so as to render the peach culture, on an extensive scale, profitable, not only in this section, but still farther north.

For many years, most of the peach stones planted in this region, and farther north, have been raised in the south. Many trees, set in New England, are raised in a more southern clime, and with a luxuriant growth that renders them tender; and in addition to

these disadvantages, most of the scions used in budding have been from kinds foreign to this climate.

Some say, all these things make no difference; but those who have bought knowledge dearly in the school of experience, do not confirm such statement. It might as well be said that an Ethiopian is as well prepared to endure the rigorous cold of Greenland as a native of that frozen region, as that southern trees, and those that have originated in a mild, foreign clime, are adapted to the north.

As the peach has travelled, from a climate of perpetual verdure, thus far north, generally enduring the changeable winters and occasionally severe cold of the Middle States, and often enduring the severe test of a northern freeze, several degrees below zero, we have reason to suppose, that, by good management, it will bear extension still farther north. At another time we may continue the subject. Our readers will be pleased to have the opinions of others also.

Spare minutes are the gold dust of time; and Young was writing a true, as well as a striking line, when he affirmed that, "Sands made the mountain, and moments made the year." Of all the portions of our life, the spare minutes are the most faithful in good or evil. They are gaps through which temptations find the easiest access to the garden.

MASSACHUSETTS HORTICULTURAL SOCIETY.

At a meeting of this association, January 6, Col. M. P. Wilder, who had long presided over its deliberations, devoting much time and talent to its interests, retired from the chair, after a few appropriate remarks in regard to the prosperity of the society, expressing his grateful acknowledgments for the confidence and respect that had been shown in his preferment, and the kindness and support he had received from his associates, for whom he should cherish an affection next to that for *family and home*.

He then introduced Samuel Walker, Esq., his successor, who made a brief *inaugural* address, expressing his gratitude for the distinction that had been shown him, his consciousness of the responsibilities and duties of the office, and his hearty desire to coöperate with the association in promoting its prosperity.

Hon. B. V. French, Vice President, presented the following resolutions, which were unanimously adopted:—

Whereas, Marshall P. Wilder, Esq., has during a period of eight years discharged the duties of President of this Society to the satisfaction of its members; and

Whereas, Mr. Wilder's administration has been marked with energy and zeal in disseminating horticultural science; and

Whereas, We believe the interest of the Society has been greatly advanced by his services, and its influences extended by his practical skill, and the many specimens exhibited by him from his garden and conservatory of almost all the varieties of fruits and flowers; and

Whereas, We also fully believe, that the public, as well as the members of this Society, are indebted to him for his practical and successful labors;— Therefore,

Voted, That the thanks of the Society be tendered to Marshall P. Wilder, Esq. for his services during the period he was President thereof; and also

Voted, That a committee of three be appointed by the Chair to purchase a piece of plate not exceeding in value *one hundred and fifty dollars*, and cause a suitable inscription to be placed thereon, and to present the same, with the above vote of thanks, to Marshall P. Wilder, in behalf of the Society, as a tribute of the regard and esteem of its members.

Mr. C. M. Hovey presented the following vote, which was passed unanimously:—

Voted, That the Society's gold medal be presented to Gen. H. A. S. Dearborn, the first President of the Massachusetts Horticultural Society, for the essential services he rendered to the science of horticulture, and the interest of the Society, during the period he presided over its affairs.

Dr. E. Wight proposed the following resolutions, which were unanimously adopted:—

Resolved, That this Society hold in high estimation the eminent attainments of James E. Teschemacher, Esq., in the various departments of literature and science.

Resolved, That the thanks of this Society be tendered to Mr. Teschemacher for his valuable services as Corresponding Secretary for many years, and as Chairman of the Committee of Publication.

Resolved, That as a token of approbation and respect, and in consideration of these services, that a piece of silver plate, of the value of *fifty dollars*, be

presented to Mr. Teschemacher; or such other article of like value as he may please to designate.

Thus closed the ceremonies of the New Year, with great unanimity and satisfaction as to the past, and high hopes for the future. Lest these things should be regarded as unimportant by some, we would remark, that the happy influence of this institute will aid in adorning various scenes with fine fruits and beautiful flowers throughout our land, in monuments that shall flourish as long as the sun shall give its genial glow, and skill and enterprise inspire the cultivator, while the doings of many august assemblies shall moulder in the dust, or sleep on the shelves of the antiquarian.

PROTECTION AGAINST THE BEE MOTH.

The bee moth is too formidable for bees to contend with, as it spreads out its web and protects itself as it advances, and when it attacks a feeble swarm, it is sure destruction to this useful insect. The bee can drive man and animals of every description; even the noble horse has not only been conquered, but has sometimes fallen a victim to their rage. Yet a contemptible worm takes possession of the neat and beautiful hive, protects himself like a skilful and powerful warrior, despoils the sweet home of the bee, and converts it into a place of filth, and the unhappy possessor retires in disgust from an enemy against whom he has no means of defence.

As the winter is a good time for the construction of hives and houses, the following article may be acceptable to our readers:—

A SURE WAY TO PROTECT THE BEE FROM THE MILLER.

MESSRS. EDITORS: I was this summer witness, in a western state, to a contrivance for protecting the bee from the miller, which was novel to me, and, indeed, to the contriver himself, until it struck his mind in the beginning of the season.

Thinking it may be a novelty to all your readers, I will give a description of it.

The contrivance I witnessed was this: "A beehouse eight feet square and eight feet high, surmounted by a roof running up into a spire, with a weathercock. In the middle of each of the four sides of the house was a close fitting door of sufficient width and height to allow persons to enter with ease standing erect. Within was a series of three shelves or platforms, one over the other, four feet square, supported by corner posts reaching from the ground to the top of the walls, and mortised perhaps into cross pieces from the top of the walls. These platforms would accommodate from twelve to sixteen common hives. *In the daytime, all these doors were fastened open; but as soon as the bees were in at evening, they were closed.* Early in the morning, they were again thrown open, and the little prisoner let forth to his toil. In the winter, the doors are to be kept locked, except when access is wanted to the hive."

By the means above stated, the miller was kept completely from the hives. He would often be seen coming round in the evening, and knocking in vain for admittance. One morning, indeed, I believe a few millers were found in the house, when the doors had been closed at too late an hour in the evening previous. But they had evidently found themselves entirely in the dark, and had done no mischief. It is obvious that the house, with its internal arrangement, could be of any size that common sense may dictate. — *N. Y. Farmer.*

NOTICES OF PUBLICATIONS.

HAYWARD'S GAZETTEER OF MASSACHUSETTS. We consider this the most valuable work of the kind that has ever been published. It is not merely a gazetteer in the usual dry, brief style, but a volume of four hundred and fifty pages is devoted solely to this state, which affords the opportunity of introducing history and statistics, and giving various details that are interesting, not only to citizens of this state, but to people throughout the country, particularly from the prominent rank which Massachusetts holds in the history of our progress as a nation. The work is enlivened with numerous instructive anecdotes. The eminent author is extensively known. Published by Messrs. John P. Jewett & Co., 23 Cornhill. We are pleased to learn that these enterprising booksellers are publishing a separate work of this kind for each state in New England.

OUTLINES OF IMPROVEMENTS IN VIRGINIA, giving an account of numerous works, such as roads, turnpikes, &c., in operation, progress, or surveyed, with a beautiful map of the state. Forwarded by the politeness of T. H. Dewitt, Esq. It shows that a spirit of improvement is pervading that state, which is leading to increased facilities of communication with every section, which is a sure precursor to agricultural improvements. By Claudius Crozet, late State Engineer.

TRANSACTIONS OF AGRICULTURAL SOCIETIES. — We have received the doings of the Worcester, Essex, and Plymouth Agricultural Societies, each in pamphlet form. The plan of late, (and of the Essex Society for a long time,) of publishing the transactions in a permanent form, is excellent, as such matter is worthy of preservation, and should be in convenient form for reference. These works contain the annual address, reports of committees, statements of applicants for premiums, essays, and other useful matter.

REPORT OF THE FIRST EXHIBITION OF THE WORCESTER MECHANICS' ASSOCIATION. — This work indicates that this institution is large and flourishing, and that their exhibition was extensive and excellent. We understood that it was attended by vast numbers, and gave excellent satisfaction.

HORTICULTURAL REPORT OF THE TWENTY-FIRST ANNUAL FAIR OF THE AMERICAN INSTITUTE, by Thomas Bridgeman and Peter R. Mead, superintendents. It contains various matters interesting to the horticulturist and pomologist.

 PROGRESS OF INDUSTRY AND HARMONY OF LABOR.

This, then, is the grand moral lesson of the hour — THE PROGRESS OF INDUSTRY AND THE HARMONY OF LABOR. That progress is already proved and illustrated when this society remembers, on the one hand, what its fathers saw, and what they did, and on the other, casts its eye on the exhibitions, and gathers up the instructions, of this day. That HARMONY, in interest and growth, in sentiment and purpose, is substantiated by this present re-union of all the sons of labor at this annual civic triumph.

These exhibitions are teaching us that we are all producers and all consumers. These holidays are proving to us that the circle of all business and all pursuits is a charmed circle, and that a single jar any where spreads discord and disaster through the whole. There is no such thing here as an isolated interest, nor any such man as an isolated laborer. In the formation and growth of communities, labor divides and subdivides itself — to the end, not that this pursuit or that may become easier or more honorable than the other, but that each and all may be the more profitable and the more productive. Would you say that the divisions and subdivisions of human invention in the machinery we have witnessed to-day, with all their nice and varied improvements from year to year, involve any encroachment on the rights of labor? Neither with any more truth would you maintain that any fixed department of human pursuit, whether of the hand or the head, in the field or the shop, in the counting-room or the office, could be stricken out without imparting disturbance to the whole. There is one harmonious idea running through the whole scheme and the whole fabric of society, the whole theory and the whole practice of the world — and that is, increased profit and increased production, — greater capacity for producing, sustaining, educating, advancing the race. The small and despised stream which flows through the heart of this city, is a wiser witness and a more liberal philosopher than we. What growth, and upbuilding, and expansion of industry has it not witnessed! It very early beckoned to its banks a scattered, humble, dependent colony of mechanics. It kept them up through prosperous and adverse fortune, till now a score of smoking shafts penetrate the sky, and from the reservoir on the north to its southern outlet, its banks are vocal with the hammer and the axe, the whirling wire and the building machine, the forming plough and the noisy plane, the fierce glow of the furnace and the heavy working of iron, the whizz of the car-shop and the crack of the pistol — while a host of children whom no man can number, look towards it in the morning and in the evening for their daily bread. If I were to call upon this productive rivulet for its testimony, what, think you, it would be? Why, to be sure, that the wire-maker and the machine-builder combined to supply the cotton and woollen mill — that the plough-maker furnished his wares for the whole agricultural world — that the iron man, with his five or six scores of hands, was at work for every body — and so on to the end of the chapter, concluding with this essential and impressive fact, that as this community has increased from year to year, new churches and new schools, a little more counsel and a little more medicine, yet other stores for wholesale and retail, more boarding-houses, and shoe-shops, and tailors and hatters, and grocers, and dress-makers, were demanded and came in upon us, till the town has become, what we behold it to-day — all helping one another, AND THE FARMER FEEDING THE WHOLE. I hold him to be a suspicious friend who would scatter the seeds of dissension where Providence and natural causes have established a coincidence of interest; and against his testimony I place that ever speaking and benevolent stream, as it carries down to the waters of the Blackstone, to be diffused over yet larger communities between this and the Bay of the Narragansetts, that large, universal truth of American life — THE HARMONY OF LABOR. — *Bullock's Ad. before Worcester Ag. Society.*

Draining low lands will contribute to promote health and profit. Generally speaking, our wet and marshy lands are the richest in organic matters, and become the most profitable to the owner, when thoroughly drained. — *Buel's Far. Com.*

Domestic Department

PRESERVATION OF HONEY.—When honey is strained from the comb, and exposed to the air, it becomes *candied*, as it is called, in a few months, a part granulating and forming sugar. This process injures its quality very much. To prevent this unfavorable change, put strained honey into bottles, filling them full, then cork them tight, and set them in a dark, cool place.

Honey in the comb, in a compact form, as it is in small drawers, boxes, &c., adapted to improved hives, will keep in good condition far longer than it will when separated from the comb and exposed, as is often the case.

We have had honey so far injured by being candied as to be unfit for use, and we have given it to bees. They readily consumed all the liquid part, leaving the little round grains of sugar.

TO MAKE YEAST.—To two middling-sized boiled potatoes, add a pint of boiling water and two tablespoonfuls of brown sugar. One pint of hot water should be applied to every half pint of the compound. Hot water is better in warm weather. This yeast, being made without flour, will keep longer, and is said to be much better, than any previously in use.

RICH BUCKWHEAT CAKES.—Take two pints of fresh buckwheat flour and half a pint of sifted corn meal, mix with milk to a thin batter, add one tablespoonful of fine salt, and two teaspoonfuls of brewer's yeast, or an equivalent of other yeast. Leave the whole in a stone jar, in a warm place, to rise over night. In the morning, add a teaspoonful of saleratus dissolved in a tablespoonful of hot water, and then bake immediately.

PICKLING CABBAGES.—Quarter the firm head of the cabbage; put the parts in a keg, sprinkle on them a good quantity of salt, and let them remain five or six days. To a gallon of vinegar put an ounce of mace, and one of pepper-corns and cinnamon. Cloves and allspice may be added, but they darken the color of the cabbage. Heat the vinegar scalding hot, and turn it while hot on the cabbage, the salt remaining. It is necessary to turn the vinegar from the cabbage several times, and scalding it, return it again while hot. This makes them tender. Purple cabbages, the heads not large, but fine and firm, are best for pickling. — *Albany Cultivator*.

BEAN SOUP.—Put two quarts of dried white beans into soak the night before you make the soup, which should be put on as early in the day as possible. Take five pounds of the lean of fresh beef—the coarse pieces will do. Cut them up, and put them into your soup pot with the bones belonging to them, (which should be broken to pieces,) and a pound of bacon cut very small. If you have the remains of a piece of beef that has been roasted the day before, and so much underdone that the juices remain in it, you may put it into the pot, and its bones along with it. Season the meat with pepper and salt, and pour on it six quarts of water. As soon as it boils, take off the scum, and put in the beans, having first drained them, and a head of celery, cut

small, or a tablespoonful of pounded celery seed. Boil it slowly till the meat is done to shreds, and the beans all dissolved. Then strain it through a colander into the turcen, and put into it small squares of toasted bread, with the crust cut off. Some prefer it with the beans boiled soft, but not quite dissolved. In this case, do not strain it; but take out the meat and bones with a fork.

EFFECTS OF HABIT ON THE INFANT MIND.—I trust every thing to habit; habit, upon which, in all ages, the lawgiver, as well as the schoolmaster, has mainly placed his reliance; habit, which makes every thing easy, and casts all difficulties upon the deviation from the wonted course. Make sobriety a habit, and intemperance will be hateful and hard; make prudence a habit, and reckless profligacy will be as contrary to the nature of the child grown an adult, as the most atrocious crimes are to any of your lordships. Give a child the habit of sacredly regarding the truth, of carefully respecting the property of others, of scrupulously abstaining from all acts of improvidence which can involve him in distress, and he will just as likely think of rushing into an element in which he cannot breathe, as of lying, or cheating, or stealing. — *Lord Brougham*.

Boys' Department.

MAXIMS OF WASHINGTON.—Every action in company ought to be with some sign of respect to those present.

Speak not when others speak, sit not when others stand, and walk not when others stop.

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

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

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

In writing or speaking, give to every person his due title, according to his degree, and the custom of the place.

Strive not with your superiors in argument, but always submit your judgment to others with modesty.

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

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

Wherewith you reprove another, be unblamable yourself; for example is more prevailing than precept.

Be not hasty to believe flying reports, to the disparagement of any one.

In your apparel be modest, and endeavor to accommodate nature more than procure admiration. Keep to the fashion of your equals, such as are civil and orderly, with respect to time and place.

Associate yourself with men of good quality, if you esteem your own reputation; for it is better to be alone than in bad company.

Utter not base and frivolous things among grown and learned men; nor very difficult questions or subjects among the ignorant, or things hard to be believed.

Be not forward, but friendly and courteous, the

first to salute, hear, and answer; and be not pensive when it is time to converse.

Gaze not on the marks or blemishes of others, and ask not how they came. What you may speak in secret to your friend, deliver not before others.

Think before you speak; pronounce not imperfectly, nor bring out your words too hastily, but orderly and distinctly.

Treat with men at fit times about business, and whisper not in the company of others.

When you speak of God or his attributes, let it be seriously, in reverence and honor, and obey your natural parents.

Health.

EXERCISE IN THE OPEN AIR. — Moderate exercise in the open air, for the purpose of assisting the various secretions, is another essential requisite for the production and maintenance of good health. None can neglect this rule with impunity; but a sedentary life is certainly not so detrimental to those who live on vegetable diet. Unless sufficient oxygen be supplied to the lungs by daily exercise in the open air, the products of decomposition will fail to be removed in sufficient quantity for the maintenance of a healthy state; and the assimilation of new matter is impeded. Without exercise, also, the contractile power of the heart and large arteries is feebly exerted; and, though sufficient to carry the blood to the ultimate tissue, it is nevertheless not strong enough to carry it through with the rapidity necessary for health. The ultimate tissue being thus filled faster than it is emptied, congestion takes place in those delicate and important vessels which compose it, as well as in the large veins, the office of which is to convey the blood from the tissue to the heart. One of the chief conditions of the body, in that general ill state of health usually denominated "indigestion," is congestion of the blood in the ultimate tissue of our organs — the brain, the lungs, the spinal marrow, the stomach, the ganglionic system, the liver, bowels, and all the organs concerned in the nutrition of the body. When the system, therefore, undebilitated by disease, will admit a good supply of oxygen by muscular exercise, it is the best means of diminishing the amount of venous blood, and (in conjunction with a legitimate supply of proper food) of increasing the amount of arterial blood; and in proportion as the latter preponderates over the former, shall we possess health and muscular strength, as well as elasticity of mind. — *Smith's Fruits and Farinacea.*

USEFUL TO RHEUMATIC INVALIDS. — Persons afflicted with that distressing disorder, the rheumatism, will be glad to learn that it may be cured by a very simple remedy, which I have found to be very efficacious. Having had two very severe attacks of this painful malady, at the sudden commencement of cold weather, to which this country is so subject, and after using liniments and various kinds of medicines recommended by physicians, to no purpose, I found by drinking a strong decoction of sayin, for a few days, it produced a speedy cure each time. Sayin is one of the evergreens, and resembles in appearance a shade between spruce and balsam, and of a dark-green color. This cure is confidently recommended. — *Selected.*

REMEDY FOR BURNS AND SCALDS. — From the number of accidents which have lately taken place, and by which several persons have been so dreadfully

burned as to cause death, we recommend the following simple remedy, by which the pain from either a burn or scald is instantly relieved. Let clarified honey be applied on a linen rag, and in one moment the pain will cease. This remedy has been tried several times, and it always relieved the moment the honey was applied. — *Newark Times.*

SORE THROAT. — We have known several instances in which this distressing complaint, even in its worst stages, has been immediately alleviated, and speedily cured by the following remedy. Mix a pennyworth of powdered camphor with a wine-glass full of brandy; pour a small quantity on a lump of sugar, and allow it to dissolve in the mouth every hour. The third or fourth time generally enables the patient to swallow with ease. — *Selected.*

Mechanics' Department, Arts, &c.

PROMPTNESS. — In every kind of business promptness is important. The farmer who neglects to secure his grain or hay, when it is well prepared and is exposed to the weather, may lose his crop by one day's neglect. But the mechanic who neglects a piece of work a few days, or even a few weeks, beyond the promised time, may find no material effect on his interest in that single case; yet the customer who has been disappointed a few times, looks for another workman who is more prompt; and little neglects, as they may be considered at first, accumulate in time, and form a prominent characteristic of him who practises them; and finally they make all the difference between complete success and failure in business — between a competency and independence, and want and embarrassment; and the evil results to the mechanic, for want of promptness, are as serious as those to the farmer, when by neglect he suddenly loses his crops.

As the mechanic depends on others for business, his success depends mainly on promptness, and every delay in fulfilling his engagement with a customer has a future bearing, and though it may apparently be excused, it will not be forgotten, but will be an important consideration in future operations.

The mechanic who delays completing his work according to agreement, sets an example of neglect which his customer may practise upon him in regard to payment, and thus he will suffer from the evil influence of his own conduct.

In conclusion, on this subject we will suggest, for consideration, whether there are not some, or even many, mechanics who neglect to perform their promises as to the completion of work. We are sorry to say that delays are common. A few hours past the time may seem a trifle; but it may affect the customer ten times more than the value of the article, and the effect will finally react on the business of him that is tardy.

By diligence, and care in promising, a mechanic may be prompt, and then he has pleasure as well as profit in his business and labor. But with negligence his business is vexatious and unprofitable, and he

works with reluctance and discouragement. We have not taken into consideration the *wear and tear of conscience*, and its final effects on character, in making flimsy excuses, delaying what might be accomplished.

MANUFACTURE OF GLASS.—A correspondent of the *Christian Mirror* gives the following account of the manufacture of tumblers:—

As the manufacture of the pressed glass tumblers may not have been witnessed by many of your readers, I will describe it in a few words. In the first place, they have a brass mould, consisting of a solid mass, about as large over as a half-peck measure, containing a hollow in it, exactly in the form of the tumbler to be made, with a follower of brass, of the same form, but so much smaller as to fit the inside of the tumbler. When the two parts of the mould are put together, the space between them is the exact thickness of the vessel required.

In the process of manufacturing, three men and two boys are required. The first thing done, is for one of the men to dip an iron rod in the melting glass, and move it about till he has a sufficient quantity of the fluid mass on the end of his rod; he then holds it over the hollow of the mould, and with a pair of shears cuts off what he judges to be just enough to constitute the tumbler. Instantly the other man brings down the follower with level power, and the melted glass is so compressed as to fill the cavity of the mould. He then turns his mould bottom up, with a little blow, and the tumbler drops red hot upon a stone table. One of the boys, with an iron rod having a little melted glass on its end, presses it on the bottom of the tumbler, and it slightly adheres. He then holds it in the mouth of a glowing furnace, turning it rapidly, till it is almost in a melting state, when the third man takes it, and, whirling the rod and tumbler on a sort of arm of a chair, he holds a smooth iron tool against the edge of the tumbler till all the roughness is removed from its edges, when a boy takes the rod from him, and by a slight stroke to the end of it, drops the tumbler, and places it in a hot oven, to cool gradually. These five hands will make a beautiful tumbler in about forty seconds, or about one hundred in an hour.

TO PRODUCE THE EXACT LIKENESS OF ANY OBJECT INSTANTLY ON PAPER.—This may be readily effected by laying the paper on a table and holding a double convex lens (a common sun-glass) over it, and then placing a mirror over the lens, in an oblique position, so as to face partly towards the object that is to be represented. The rays of light, passing from the object to the mirror, will be reflected downward through the lens, and produce the likeness of the object in full colors on the paper. This experiment may easily be made in the evening, by reflecting the flame of the candle in this same manner, which will appear very brilliant on paper. But in order to render the reflection of an object distinctly visible by daylight, it may be requisite to exclude nearly all the light from the paper, except what falls through the lens. In all cases, the lens must be placed at a distance above the paper, according to its focus, at the distance at which it would contract the rays of the sun to the smallest point.

FIRE AND WATER-PROOF CEMENT.—To half a pint of milk put an equal quantity of vinegar, in order to curdle it; then separate the curd from the whey, and mix the whey with four or five eggs, beating the

whole well together. When it is well mixed, add a little quicklime through a sieve, until it has acquired the consistence of thick paste. With this cement, broken vessels and cracks of all kinds may be mended. It dries quickly, and resists the action of water, as well as of a considerable degree of fire.

A CEMENT FOR STOPPING THE FISSURES OF IRON VESSELS.—Take two ounces of muriate of ammonia, one ounce of flowers of sulphur, and sixteen ounces of cast-iron filings or turnings; mix them well in a mortar, and keep the powder dry. When the cement is wanted, take one part of this and twenty parts of clean iron filings or borings, grind them together in a mortar, mix them with water to a proper consistence, and apply them between the joints.

TO PREVENT IRON FROM RUSTING.—Warm your iron till you cannot bear your hand on it without pain to yourself. Then rub it with new and clean white wax. Put it again to the fire till it has soaked in the wax. When done, rub it over with a piece of serge. This prevents the iron from rusting afterwards. — *N. Y. Far. & Mech.*

TO STAIN WOOD LIKE EBONY.—Take a solution of sulphate of iron, and wash the wood over with it two or three times; let it dry, and apply two or three coats of a strong decoction of logwood; wipe the wood when dry with a sponge and water, and polish with oil.

GROWING TEA IN THE UNITED STATES.

By the following paragraph, copied from the *New York Journal of Commerce*, it appears that an experiment in the culture of the tea plant in this country is about to be tried under favorable circumstances. It is the opinion of many well-informed persons, that it will prove successful.

THE TEA PLANT IN THE UNITED STATES.—The planters and farmers of the Southern States will be gratified to learn that seven cases of black and green tea plants, Chinese stock, have just arrived from London in the ship *American Eagle*, shipped by Dr. Junius Smith, during his late visit to that city. There are five hundred plants, of from five to seven years' growth; all are designed by the doctor for seed plants. A small quantity of tea-seed was brought out by him in the steamship *Britannia*, which was received in London overland from the north-west provinces of India. We understand the doctor designs to proceed soon to the south, with a view of forming a plantation. More plants and seed are expected from India and China this season, and if we may judge from the progress already made, we have now the means in hand of extending tea plantations throughout such sections of our country as may be found adapted to their culture. — *Ohio Cultivator.*

SPONTANEOUS COMBUSTION.

At the City Gas Works at Philadelphia, vaults had been constructed for the bituminous coal used in making the gas, and into which the coal was packed very close for the saving of room. A few weeks since, spontaneous combustion was observed in these vaults; but it was put out (supposed) with but little trouble. Last Saturday week, however, the fire burst out again, and was not subdued without a great loss of coal, after several hours of unremitting toil by the city fire department. — *Scientific American.*

STATEMENT OF BRIGHTON MARKET.

		For 1848.	
40,784 Beef Cattle.	Sales estimated at	\$1,590,576	
20,553 Stores.	“ “ “	493,272	
146,755 Sheep.	“ “ “	264,159	
87,690 Swine.	“ “ “	482,295	
		\$2,830,302	
1847.			
43,425 Beef Cattle.	} Sales estimated at	\$2,719,462	
20,738 Stores.			
133,550 Sheep.			
62,915 Swine.			
1846.			
38,570 Beef Cattle.	} Sales estimated at	\$1,871,113	
151,064 Stores.			
105,350 Sheep.			
44,940 Swine.			
1845.			
48,910 Beef Cattle.	} Sales estimated at	\$1,893,648	
13,275 Stores.			
107,930 Sheep.			
56,580 Swine.			

THE APHIS ON TREES.

Messrs. Editors: Having a small, young orchard, of about sixty trees, of the best cultivated varieties, I was greatly tried on finding that the above insect was doing great injury to the new growth. The leaves were curled up and blackened, the young shoots retarded in their growth, and in some instances entirely killed. My quince and seedling apple-trees of the second year's growth were in a still worse condition; many of the tops being so completely covered that they were destroyed.

My first remedy was a strong infusion of tobacco — say four ounces to six quarts of boiling water. This was placed in a suitable vessel, which was held by another person, whilst I carefully bent down the limbs, one or two at a time, and immersed the ends of them in the infusion. A few trees were treated in this manner. The insects were killed by the tobacco infusion; but I thought the effect on the young shoots and tender leaves rather injurious.

While reflecting on the subject, I remembered having read that the *bitter principle* was destructive to insects. I seized the idea, and resolved to try it. The bitter selected was the common quassia of the shops, as being cheap and intensely bitter. Half a pound of the quassia chips were boiled for a few minutes in six quarts of water. When the decoction was cold, it was used in the same way as the tobacco infusion, with complete success, and without any apparent injury to the leaves or new growth. All the insects that were wet with the liquid were killed.

Many of my young seedling apple-trees, that looked so miserably three weeks ago, are now sending out a thrifty growth, which contrasts pleasantly with the blackened and curled foliage below, which was nearly destroyed by the wood-louse.

Would strong bitter infusions destroy lice on cattle and stock? It is cheap and perfectly safe — safer, in my opinion, than unguentum or tobacco.

E. G. MYGATE.

RICHMOND, McHENRY CO., ILL., Aug. 21, 1843.
— *Prairie Farmer*.

WOODEN RAILROADS.

Mr. Clowes, of Sullivan county, N. Y., has published some essays showing the advantages and economy of building railroads altogether of wood — wooden rails and wooden sleepers. The opinions

of Mr. Clowes are good and worthy of attention. Where timber is so abundant and cheap, as it is in our country, we think that railroads of this kind would not only be of great benefit, especially to our farmers in the rural districts, but would be of great benefit to our mechanics and merchants, who dwell in our cities and villages also. The roads in our agricultural districts are not good, although the timber is abundant. Now, just let some main tracks of strong, deep, and broad wooden rails be laid through the most central and densely-populated parts of the country, as auxiliaries to the main lines of the iron tracks, and let broad-wheeled locomotives, built upon the plan of Mr. Sellers, be placed upon the wooden tracks, so as to carry at a cheap rate the agricultural products of our farmers to market, and great benefits would thus be conferred both upon our rural and municipal population. It frequently costs more to bring agricultural products to market than the original price at the farmer's dwelling. Every improvement, therefore, that cheapens transit, is certainly a benefit to every class of our citizens. — *Scientific American*.

EFFECT OF ETHER ON PLANTS.

At a meeting of the New York Farmers' Club, July 18, the following was read: The *Mimosa pudica* being placed under a glass vase with cotton wet with the ether, in twenty minutes the plant lost all its sensibility, and could not be made to move by touching it with a pin. At its most susceptible parts, some change in its color was perceptible. The plant was ten minutes insensible, and then gradually recovered. This experiment was often repeated, and always with the same results. The experiment was tried on the *Oxalis sensilina*, which is less irritable than the first named, and it did not lose its susceptibility in less than twenty-five minutes, and recovered slowly. The plant *Dionaea muscipula*, after twenty minutes, began to close up its young leaves gradually, and then lost all its sensibility.

EFFECT OF DOMESTICATION ON BIRDS.

Professor Low, in speaking of the effect of domestication on birds, says, "They lose the power of flight by the increase of size of their abdomen, and the diminished power of their pectoral muscles and other parts of their body are altered to suit this conformation. All their habits change; they lose the caution and sense of danger, which, in their native state, they possessed. The male no longer retires with a single female to breed, but becomes polygamous, and his progeny lose the power and the will to regain the freedom of their race."

AGRICULTURAL SCHOOLS IN FRANCE.

At a recent session of the National Assembly of France, the principal part of the day was devoted to the bill relative to the agricultural schools. It was resolved that one of these institutions should be founded and maintained in each department at the public expense, and further, that the country should be divided into agricultural districts, not exceeding twenty, in each of which a government school is to be established.

"BUSINESS vs. LOUING. — Call upon a business man in business hours, on business only; transact the business, and then go about your business, that he may have time to finish his."

SPEED THE PLOUGH.

Heaven speed the plough! and smile upon the crown
 Of Ceres, bless the efforts of all men
 Who labor heartfully on dale or down,
 The plain luxuriant, or the mountain glen,
 Evoking Nature's gifts, till e'en the fen
 Teems with abundance, and the general land
 Shines worthy of Earth's worthiest citizen,
 Who bids the sickle triumph o'er the brand!
 Heaven speed the plough! Fair Nature's shuttle true,
 The farmer is her weaver, and the field
 Her web and woof! Long ages but renew
 Proofs of her power, while rots the warrior's shield.
 Rarely hath shame flushed on a nation's brow
 Whose honest prayer hath been, *God speed the plough!*

OLDEN TIMES.

Farmers' wives, in olden times had lots of work to do. In the reign of Henry VIII., Sir A. Fitzherbet wrote a treatise entitled the "Rock of Husbandry," in which he says, —

"It is a wyve's occupation to wynowe oll manner of cornes, to make malte, to washe and wringe, to heye, sheve corn, and such other. And to go, ryde to the market and sell butter, cheese, milk, eggs, chickens, capons, beevers, pygges, geese, and all manner of cornes."

CURIOUS GROWTH OF ROOTS.

An instance occurs in Leigh Woods, near Bristol, which remarkably illustrates the tendency of roots to grow towards the spot most fitted to afford them nutriment. In a little hollow on the top of the shell of an old oak, the outer layers of which, however, and the branches, are still vegetating, the seed of a wild-service tree was accidentally sown. It grew there for some time, supported, as it would appear, in the mould formed by the decay of the trunk on which it had sprouted; but this being insufficient, it has sent down a large bundle of roots to the ground, within the shell of the oak. Those roots have now increased so much in size, that, as they do not subdivide until they nearly reach the ground, they look like so many small trunks. In the soil, however, towards which they directed themselves, there was a large stone — about a foot square; and, had their direction remained unchanged, they would have grown down upon this. But, about half a yard above the ground, they divide, part going to one side and part to the other, and one of them branching into a fork, of which one leg accompanies one bundle, and one the other; so that, on reaching the ground, they enclose the stone between them, and penetrate on the two sides of it. — *Carpenter's Vegetable Physiology.*

ICE MACHINE.

We learn from the Cincinnati Gazette, that an ingenious mechanic of that city has constructed, and put into successful operation, a machine for the manufacture of ice. By means of this machine, such a degree of cold can be obtained as to form ice instantly, and which can be afforded at a cheaper rate than it is now sold at. The machine can be used in any climate, is cheap, and can be kept in order. The patentee values this right at half a million of dollars.

Worthy to be written in letters of gold. The motto of Cotton Mather over his door was, "Be short." "Whatsoever thy hand findeth to do, do it with thy might."

THE OLIO.

THE FRENCHMAN AT HIS ENGLISH LESSONS.

FRENCHMAN. Ha, my good friend, I have met with one difficulty — one very strange word. How do you call h-o-u-g-h?

TUTOR. *Huff*?

FRENCHMAN. Tres bien, *huff*; and *snuff* you spell s-n-o-u-g-h — ha?

TUTOR. O, no, no; *snuff* is s-n-u double-f. The fact is, words in *ough* are a little irregular.

FRENCHMAN. Ah, very good. 'Tis beautiful language. H-o-u-g-h is *huff*. I will remember; and e-o-u-g-h is *cuff*. I have one bad *cuff* — ha?

TUTOR. No, that is wrong. We say *kauf*, not *cuff*.

FRENCHMAN. *Kauf*? Eh, bien. *Huff* and *kauf*; and, pardonnez moi, how do you call d-o-u-g-h — *duff* — ha?

TUTOR. No, not *duff*.

FRENCHMAN. Not *duff*? Ah! oui; I understand; it is *dauf* — hey?

TUTOR. No, d-o-u-g-h spells *doe*.

FRENCHMAN. *Doe*! It is very fine — wonderful language! It is *doe*; and t-o-u-g-h is *toe*, certainement. My beefsteak was very *toe*.

TUTOR. O, no, no; you should say *tuff*.

FRENCHMAN. *Tuff*! Le diable! and the thing the farmer uses — how you call him — p-l-o-u-g-h! *pluff* — ha? You smile. I see I am wrong. It is *plauf*? No! Ah, then it is *ploe*, like *doe*. It is beautiful language, ver' fine — *ploe*.

TUTOR. You are still wrong, my friend. It is *plow*.

FRENCHMAN. *Plow*! Wonderful language! I shall understand ver' soon. *Ploe*, *doe*, *kauf*; and one more — r-o-u-g-h — what you call General Taylor — *rauf* and ready? No? certainement, it is *row* and ready?

TUTOR. No! R-o-u-g-h spells *ruff*.

FRENCHMAN. *Ruff* — ha! Let me not forget. R-o-u-g-h is *ruff*, and b-o-u-g-h is *buff* — ha?

TUTOR. No, *bor*.

FRENCHMAN. Ah! 'tis ver' simple — wonderful language; but I have had what you call e-n-o-u-g-h! ha! what you call him?

THE END OF LIFE. No man has a right to live solely for himself; but should live to do good, and scatter blessings all around him.

How beautiful, how sublime the precept, "Forgive us our trespasses as we forgive those who trespass against us." — But who would willingly be thus adjudged? Who is there, that does not hope for more mercy at the hand of his Maker, than he has shown to his fellow-man?

A warm heart requires a cool head. So a ship that carries a great deal of sail needs a first-rate helmsman.

Dr. Franklin says, "He who rises late may trot all day, but never overtakes his business."

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume.

THE POSTAGE

On this paper is only 1 cent, or 25 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 30 cents a year, beyond those distances.

STEREOTYPED AT THE
 BOSTON TYPE AND STEREOTYPE FOUNDRY.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, FEBRUARY 3, 1849.

NO. 4.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

QUALITIES OF INDIAN CORN.

Chemists have furnished analyses of Indian corn ; but these, in the usual way in which we have them, are very indefinite, and far from giving the information which the farmer desires in order to enable him to determine on the value and proper purposes of corn for feeding, and to ascertain what elements it takes from the soil, that he may supply them in manures.

Different varieties of corn differ widely. Some contain a large portion of oil, others are composed mostly of starch. The Tuscarora, the Calico, and Knight's Tall Flour corn, contain a very large portion of starch and very little oil. On the contrary, the various kinds of pop corn, and those heavy varieties usually cultivated in New England, contain a large portion of oil, and are valuable for their fattening properties.

Corn composed mostly of starch, makes a light, pleasant, wholesome food, and it is excellent to mix with wheat flour, which is rather tenacious and rich in nutrition. The Calico corn is considered the best for this purpose, and, excepting the hull, it is remarkably white, and does away with the objection of mixing corn flour with that of wheat, on account of its darker color. The inner part of Calico corn is as white as wheat.

We hope that in future, chemists will be more definite, and when they give us the results of their experiments and investigations, that they will give those circumstances that are so essential to their utility. They should name the variety of which they give an analysis, and state its predominant qualities as to oil or starch.

AGRICULTURAL MEETING

AT THE STATE HOUSE.

Agreeably to adjournment at the close of the last session of the Legislature, the first meeting was held January 16, and the following officers were chosen : Hon. Marshall P. Wilder, (of the Council,) President ; Lieutenant-Governor Reed, and Hon. J. C. Leonard, of Norton, Vice-Presidents ; William Buckminster, of the Ploughman, S. W. Cole, of the New England Farmer, and L. Bartlett, of the Cultivator, Secre-

taries ; Hons. William B. Calhoun, (Secretary of State,) Brooks, of Princeton, Wilder, of Leominster, Walker, of Brookfield, and J. S. Sleeper, Editor of the Boston Journal, a committee to propose subjects for discussion, engage gentlemen to open the discussion, and to deliver essays on agriculture.

Voted, That the speaker who opens the discussion be limited to half an hour, and those that follow to fifteen minutes.

Remarks were made by several gentlemen on the mode of conducting the meetings, particularly on having subjects more limited than usual, on reporting, &c.

We have generally had broad subjects for discussion at these meetings, and we have scattered our labors over various parts of a wide field, without effecting much in any one branch. Our choice has been to have definite subjects, and discuss them thoroughly. For instance, take apples for one evening, or more if necessary, and not take the broad subject of "Fruits and Fruit Trees," and discuss it six evenings, as has been the case. As an instance of the impropriety of extensive subjects, after the organization, at the first meeting, the subject of Farm Stock was taken up for discussion, and nothing of consequence was said, excepting on swine, and not half of the different breeds of this class of animals was named ; and scarcely any thing was said on management, feeding, &c. We name these things, hoping that those who read these remarks will use their influence in making an improvement in having more definite subjects, that they may not be so broad that we must have the same subjects year after year.

These meetings are interesting and highly instructive, and we are pleased to see exhibited an unusual interest in them the present season. There seems to be a determination to make them more useful and efficient, and give them an importance that shall command not only the respect and attention of agriculturists, but of gentlemen of science and general intelligence.

We shall give reports of the meetings, containing the substance of the most important facts elicited by these useful discussions. They will be arranged under the head of the subjects, instead of the general sameness of meetings, only varied in number and

date, which will be an improvement in a permanent work like this. As our paper is stereotyped, we cannot publish the doings of these meetings immediately, but nothing will be lost by deliberation, instead of a hasty report, as it gives an opportunity to correct errors that are liable to occur, or ascertain more distinctly the views of a speaker.

SWINE.

At the first agricultural meeting, the subject for discussion was "*Swine*."

Mr. Buckminster said, that the Berkshire hogs had been extolled highly, but farmers have been deceived in them. They do not open well, though of good appearance externally. The meat is stringy and tough; and for barrelling, it does not sell well in the market. The Bedfords and Markays are more valuable. He thought the Suffolk breed was very good. One objection, they are not good breeders.

Mr. Wilder, the president, said, that he had kept the Suffolk hogs two years, and had raised no pigs. They were probably too fat for breeding. They sell at an extra price in the market. The size is small. Mr. Stiekney, who imported this breed, increases the size by crossing them with the Middlesex.

Mr. J. Breck, of Brighton, said, that he had tried the Berkshires; they did not cut up well. He thought they might be improved by a cross with the China breed.

Mr. Brooks, of Princeton, said, that the Berkshires are excellent for ham, for roasters, and lard, and he would raise them for these purposes. They produced more lean meat than others. The fat fries away more than usual. He said that no breed of hogs would answer all purposes.

Mr. Bartlett said, that fat hogs would not breed well. Poor people, who do not keep their hogs in high condition, generally raise the most pigs. He had a sow which he kept mostly on raw ruta bagas, and she produced a baker's dozen of pigs.

Mr. Cole remarked, that the Berkshires had been extolled too highly, and now they were undervalued. They had been very useful in New York, and in the western country, in crossing with other breeds, which had made great improvement. There is a great demand for fat meat, and hogs are deprived of pure air, and exercise, and high fed, till they are diseased with fat, and sometimes they cannot get up, and cannot see, and would soon die, if not butchered. Lean meat is best for nutriment, and to supply the wear of muscle in a person that labors; but if the object of eating is to grow fat, then fat meat should be preferred.

THE WHITE CARROT.

A few years ago the white carrot excited great attention in this country and in Europe, and it has been tried extensively, and farmers generally say that it is found wanting in nutriment, color, or some other quality, and the cultivation of it is nearly abandoned in this section.

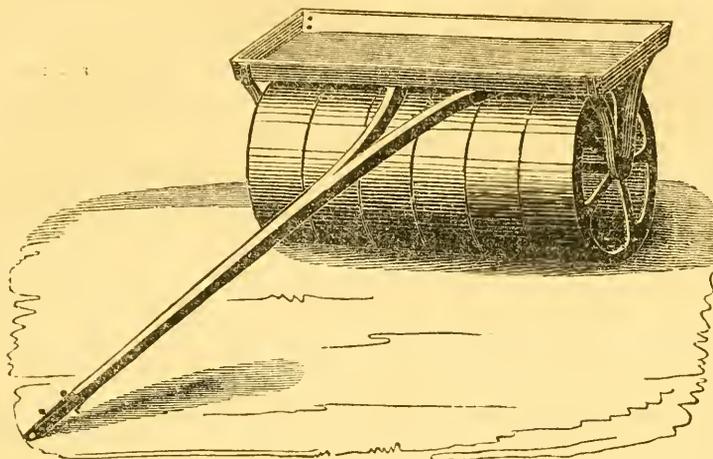
We think it is the same with this carrot as it has been with the Chinese Tree corn, Rohan potatoes, and Berkshire pigs, first extolled too highly; and, as they did not come up to the high imaginary standard, they have been undervalued. The white carrot is estimated higher in other sections than in this, and we hope that it will continue in favor, at least long enough for it to have a fair trial. We copy the following from the Germantown (Pa.) Telegraph:—

I have recently examined some superb specimens of this variety of the carrot family, and cannot resist the conviction that, with proper management and a congenial soil, they will be found far more profitable and productive than either the orange or red. The individual by whom they were exhibited is noted for his intelligence and enterprise, and has several times received premiums and other honorable distinctions from Agricultural Societies, for the best crops, animals, &c., and is, withal, a citizen of whom the agricultural community may well be proud. Our friend speaks in terms of high approbation of the white carrot as a "field crop," being, he thinks, far more hardy and prolific than any other variety of the carrot he has ever cultivated. As the roots in question were grown on the same soil with others of the red and orange varieties, and cultivated precisely in the same manner, without the smallest modification as to manuring or after culture, he was able to ascertain, with the nicest accuracy, the comparative value of the several kinds. The result of his observations were, that, on the same soil, and with the same advantages, the white carrot is of far greater value to the root grower, if his object be stock feeding, than any root he can cultivate with the same advantages of climate and manure.

In the cultivation of carrots, — unquestionably one of the best roots the farmer can raise, — it is necessary to have the soil of a good texture, and properly prepared. Old lands, that have been well worked, and reduced to a fine tilth, are much preferable to new; and if not exhausted, or so far emasculated constitutionally, as not to admit of ready and thorough resuscitation by the application of strong and energetic manures, they will rarely fail of producing a good crop. When intended for stock, carrots may, like turnips, be sowed late. The ground should be rolled after sowing, and great care exercised to keep down the weeds, especially while the plants are young. We frequently hear complaints that carrot seed does not readily germinate, and that the crop is principally unprofitable on this account — transplanting or resowing being impracticable. If farmers would soak their seed twenty-four hours before sowing, in urine, and then roll it in gypsum, and *after sowing*, carefully compress the soil by the application of the roller, or some other suitable instrument, there would rarely be any failure; the difficulty being in the management oftener than in the seed.

LAST OF RAILS.

Rails split in the spring when the bark will leave them, last much better than those split in winter, as the bark remaining on the wood causes it to retain moisture, which soon rots the rail. When there is bark on the rails, to turn down so that, as it becomes loose, it can fall off, will promote their last. Small rails last much longer than large ones. All fences should be torn down and re-set within three years after they are first built. The rails are not then so rotten as to break in throwing about, while the bark has generally become sufficiently loose to jar off. For durability, Spanish oak is much better than either red or post oak. — *Southern Cultivator*.



THE FIELD ROLLER.

The field roller is among the important implements of the farm, contributing largely to improvements and successful cultivation. The following are among the advantages of this valuable implement.

It levels and smooths the land on sowing down to grass, pressing sods and small stones into the soft soil, pulverizing the lumps of earth, and preparing a fine even surface for the scythe, and a better condition of the soil for the crops.

It presses the light, loose earth around the seeds of grass, grain, &c., causing a more ready and sure vegetation, for many hard, slowly-vegetating seeds will not start easily, and some not at all, unless the earth is pressed closely upon them. A farmer observed that an old horse gave him a useful lesson. He was in a field in which a piece of carrots had just been sowed on light land, and the horse rolled on the carrot bed, and where he rolled the seeds came well, but mostly failed on other parts.

By making the earth compact at the surface, insects are deprived of shelter; otherwise the sods, loose stones, and lumps of earth, afford them convenient habitations.

In spring there is frequently great advantage in rolling lands recently sowed to grain and grass, as the earth that has been hove with the frost, exposing the roots of plants, is replaced by the operation of this implement.

The roller is particularly beneficial on light lands, where the soil is too loose and porous to retain moisture, and protect the manure from the effects of drying winds and a scorching sun, and where it is too light to allow the roots of plants a firm hold in the earth; and on lands usually wet, it is very useful, in a dry time, in smoothing the surface, after sowing to grain or grass. On most soils, small stones are beneficial, and thus are but little trouble in tillage.

Some farmers apprehend that rolling lands will make them heavy, but this is not the case; it only renders them compact at the surface, while they

continue as loose and permeable to the roots of plants as before this operation.

Rollers are constructed of wood, stone, and iron. Those of wood and of iron are mostly used. The former cost the least in the beginning; but those made of cast iron are economical in a long run, as they will last for ages. They are composed of several sections, or drums, as represented in the engraving. They allow of turning conveniently, and without scraping or displacing the soil.

Cast iron rollers are made of different sizes, by varying the number of sections, and by the use of sections of different diameters. Some are twenty-two, others thirty inches in diameter. They move on wrought iron arbors, two inches in diameter. Rollers thus constructed are remarkably strong and durable. A box is attached, to receive stones and other impediments to be removed from the land, or to add to the weight, when necessary. The price varies from thirty to fifty dollars. These rollers are for sale at the Agricultural Warehouse of Messrs. Ruggles, Nourse, Mason, & Co., Quincy Hall, over the Market.

CARE OF COWS, SHEEP, &c.

All animals with young should be kept in tolerably good condition, as poor keeping for creatures in such condition is injurious, both to the parent and offspring. But farmers should be very careful and guard against the opposite extreme; for very high keeping, which makes the animal very fat, is more injurious than poor keeping, endangering the life and health both of the dam and her young.

Gentle exercise, at least, is necessary for animals in a prolific state, but from inconvenience this is often neglected in winter. With proper care animals may receive a little moderate exercise, even in winter, to prevent the jaundice, dyspepsia, and various disorders that arise from inaction. Animals should at all times be supplied with a plenty of pure water.

For the New England Farmer.

WIRE FENCES.

MR. EDITOR: Making and keeping fences in repair under the most favorable circumstances, furnishes a sad item in the expenses of the farm, and this especially in regions where stones are scarce, and timber is every year becoming scarce, and the demands for it for other purposes are increasing in rapid extent. Indeed, the real and threatened scarcity of fencing materials has already caused many to inquire, "How are the next generation to protect their fields, and secure their crops from the depredations of domestic animals?"

We rejoice that a remedy is likely to appear in the introduction of *wire* for a fencing material, if it answers the purposes anticipated by many a cool-headed, sound-minded man. Its introduction will become very general, not only where other materials are scarce or not to be obtained at all, but where they are abundant, from the fact that it will not only be cheaper in the outset, but "in the long run," than any other fence that can be invented. Let us count the cost and see.

T. C. Peters, Esq., in an article in the January number of the *American Agriculturist*, makes an estimate of the cost of this kind of fence by enumerating items, such as cost of wire, posts, labor, &c., at twenty-two cents per rod. We think this estimate too low for the country at large; and allowing it to be thirty-seven and a half cents per rod, we conceive that in a majority, if not in all cases, the balance of credit must be decidedly in its favor. What other fence can be made so cheap? Surely not a wall, for a half wall usually costs fifty cents a rod; and then it must be raised by poles to give it sufficient height, which may safely be concluded to raise the expense, at a probable average cost of such poles, including transportation, to seventy-five cents per rod. If a wall of sufficient height to keep cattle, &c., in their enclosures, is built, no one will suppose the cost to be less than a dollar per rod. Then such walls must have sufficient width, varying from two to three, and perhaps four feet, at the bottom, to give them solidity. By dividing even a small farm into necessary fields, with these walls, an acre of land is soon entirely occupied, and twice as much injured by the dark shadows they cast over it.

We dismiss the wall, and look at the rail fence. If a worm or zigzag fence, it will require one hundred rails for ten rods, or ten rails for one rod. The price of these rails will vary, of course, according as timber is plenty or otherwise. In New England, where we are consuming the productions of the forest so fast, and the demands for building timber and fuel are increasing so rapidly, five dollars per hundred for rails, delivered, we should think a low average. Here, then, for the ten rails to lay a rod of fence, you pay fifty cents. Then you have the cost of labor to get and lay the foundation, and lay up the rails, the cost of which will, of course, be in proportion to the price of labor in different localities. Then such fences are liable to be blown down by high winds, breakage of rails, &c., which will cause them to afflict the farmer with additional expenses from year to year. These also occupy, to the exclusion of the plough, a strip of land from four to five feet.

In some sections we have seen *post* and rail fences, the only plea for the economy of which must be, we are sure, that they occupy less land; for the expense of cutting, mortising and setting posts must fully equal the cost of the additional number of rails for a worm fence.

But to return to the wirefence. If it will answer the purpose of protection, — and we see no reason to the contrary, — it must be, in our mind, surely entitled to precedence, even at the same cost of other fences;

for, in the first place, it will occupy but little space, and will injure no land by shading it. Secondly, when once thoroughly built, its durability must be as great, if not greater, than other fences, excepting heavy walls. Thirdly, its appearance on the farm must be very neat and tasteful, which will render it desirable, particularly for street fences, (if we must yield to those who disregard the law, and let their animals run at large at our expense,) and around buildings.

How many days is the farmer taxed in various, if not nearly all parts of New England, every winter, in breaking paths through ponderous snow drifts, to open the necessary thoroughfares of business! And how often is the traveller, bewildered by intricate mazes, crossing fields, and turning through barnyards, delayed in his progress, and vexed in his soul, to avoid unsightly drifts! In nearly every instance these mountain masses of driven snow are indebted for their lodgment to the protecting fences on either side, which shield it from the rough blasts of the northern tempest. Wire fences, if wire will answer for fences, will remedy this evil at once and forever. So open that they will furnish no impediment to roaming winds, they will permit free and unincumbered passage onward, and instead of permitting these grievous annoyances to accumulate, they will scatter them in their furious gambols. What a comfort to man and his beasts would then be realized! The most appalling horrors of "a New England winter" annihilated, and an amount of vexatious and unproductive labor saved which would be gladdening to all who have realized its perplexity.

Yours truly,

WILLIAM BACON.

ELMWOOD, Jan. 1849.

For the New England Farmer.

TRANSPLANTING TREES.

MR. EDITOR: As the season is approaching when the transplanting of trees will again commence, I propose, as briefly as the nature of the subject will admit, to state my own experience as to the best method of accomplishing this object in New England.

And first, as to the season of transplanting. I am well satisfied that, for deciduous trees of all kinds, the spring months are most favorable; and the sooner this can be done after the frost is out of the ground the better. My plan is to have the holes prepared in the autumn, when it is practicable, because the action of the frost and the snow and rain tend to loosen the earth beyond the hole upon all sides, and thus give the new fibres from the roots a better chance for penetrating the earth. Another advantage is that, by digging the holes in the fall, the decay of weeds, leaves, and other vegetable matter that collects in them, forms the best nutriment for the roots.

Evergreen trees may be planted a little later than deciduous trees; but I cannot recommend a later period than the 20th of May, and they will be sure to do well if planted at any time for a month previous.

We have all been cautioned against deep planting sufficiently to prevent the practice being very common; nevertheless we are apt to commit a very great error, causing a similar result, by loosening the earth too deeply. We propose now to speak of the manner of preparing the ground for the reception of the tree, by which this error will appear manifest.

In digging the holes, reference, of course, must be had to the size of the tree to be planted. The holes should be at least a foot wider in circumference than the roots, but no deeper than is sufficient to sink

the crown of the stem where it rises from the roots to a level with the natural level of the ground, or, if any thing, a little above it. If we examine a tree growing in its natural state, we shall always find that the tree bulges out of the ground, and that the diverging roots are generally visible; while the tree which we plant is set so low that it looks more like a stake driven into the ground than a tree. It is a common practice, after digging the holes as deep as the tree is intended to be placed, to loosen the earth still deeper down, sometimes throwing it out, and putting in mould, sods, or manure. The effect of this is, that the tree settles down with the earth, as it hardens, and gets below its natural level, to its great and lasting injury.

In taking up the tree to be transplanted, we are apt to be short-sighted and careless, and we cut away and break the roots without mercy. The proper method of proceeding is, to take off the earth carefully above the roots, then proceed well outside, and trench round the tree till the operator gets below the tier of roots; then, by passing the spade under and towards the centre of the tree, he can loosen it in its bed, and draw it out. Before setting it out, let him examine the roots carefully, and cut off smoothly every end of a root that has been broken, and it is then ready for planting. To do this in the best manner, it should be placed as near as possible in a similar position to the old one, the roots should be carefully straightened out, and the earth filled in among them by the hand. It should not be trodden down until this has been done, and the earth all in, and then only pressed upon with the foot. No water is necessary; on the contrary, in nine cases out of ten, it is hurtful. If a tree has been out of the ground for a long time, and the roots have become dry, it is advisable to make a puddle of mud, and dip the roots in it before setting the tree.

Mulching trees, after transplanting, is a most simple and ready mode of protecting them from heat and drought. I have never known it to fail in keeping a tree healthy and vigorous against the severest drought. Grass, weeds, stable litter, or even stones around the trees, is a sufficient mulching. This, in our climate, is an essential never to be disregarded, either in fall or spring planting.

Pruning is another important essential to be observed in transplanting deciduous trees. Every tree, when transplanted, loses some portion of its roots; and it follows, of course, that it loses a part of its ability to support its branches, and to furnish the requisite supply of food for a vigorous growth the ensuing season. It becomes necessary, therefore, to sacrifice a part of the tree above the ground, somewhat in proportion to that which has been lost beneath. Now, there are several modes of doing this. I have tried them all, and am convinced that the best, simplest, and the only one that does not detract from the beauty of the tree is, to cut off from every branch, except the topmost leading shoot, the whole of the previous year's growth down to a vigorous bud on the stem. A few more words about transplanting, and I will finish my desultory remarks. A damp day is better than a bright day; a still day is preferable to a windy one, for transplanting trees; and never expose for a moment, if possible, the roots of any tree, particularly an evergreen tree, to the wind. I have never seen this sufficiently attended to. Where a tree is to lie, if only for a few moments, exposed to wind or sun, a mat should be at hand to protect it. More trees are lost from a desiccation of the roots by a drying wind than from any other cause.

LYNN, Jan. 1849.

R. S. F.

For the New England Farmer.

"THE WIND BLOWETH WHERE IT LISTETH."

MR. EDITOR: There have been writers on the philosophy of the winds, and windy philosophers have written on many subjects; but I have seen no satisfactory reasons given by any one why the wind should vary in its temperature so much as it frequently does when coming from a northern direction. The expansion of the air in one place has been considered the cause of the rushing in of a more condensed air from another place to produce an equilibrium. It is a common occurrence, after severe cold weather in winter, for the air to moderate, and a thaw to commence, while the wind is at the north; but it is more frequently the case when the wind is from the south. What should take place to rarefy the air at the north in the winter, and cause the wind to rush in from the south, has been somewhat a puzzle in my mind.

Philosophy readily accounts for the cold chill at the commencement of a south wind after cold winds from an opposite direction: it is evident that the cold air which has gone from the north to the south on the change of the wind to that direction, must return again, and continue to moderate gradually as the air moves from a warmer climate. But how to account for a rarefaction in the air and thaw, while the wind is from the north, after severe cold in the winter, no philosopher as yet has given me satisfaction. Whether it is caused by subterranean heat, or electricity, or whatever circumstance, the subject will admit of an interesting discussion for farmers in the leisure hours of winter, and they can enlighten one another through the columns of the *New England Farmer*.

If farmers are not all philosophers, they ought to become so. Men of no profession are benefited more by a knowledge of natural philosophy than farmers are. The more knowledge of causes and effects a man has, the better he is qualified to cultivate the earth, and reap the reward of his knowledge in an augmented harvest. The earth is so constituted that the circulation of the air is an operation necessary to the existence of all breathing animals and growing vegetables. A stagnated air would soon show its deadly effects on all animated nature. In this world of changes the winds are subject to irregularities, and, like the passions of men unrestrained, sometimes hurry into a tempest, and lay prostrate all in their way, causing devastation to dwellings, forests, fields, and even to animal life.

Moderate winds are exhilarating to the spirits; especially the zephyrs will almost produce an ecstacy upon a sensitive, healthy set of nerves. The winds are as beneficial to growing vegetation as they are to animal life; without which the growing vegetables would be destitute of that exercise which is necessary to all animal and vegetable existence; without them the forest trees would become puny and weak, like the man who grows up without exercise. The great Author of nature, in his wisdom, has made the winds, notwithstanding all their irregularities, one of the great essentials in his design of bestowing temporal blessings upon his creatures.

Wishing you prosperity in your endeavors to communicate knowledge, and do good,

SILAS BROWN.

WILMINGTON, Jan. 23, 1849.

APPLES IN MAINE.

Colonel John Moulton, of Porter, Me., on the hilly lands nearly forty miles north-west of Portland, is one of the most extensive fruit-growers in that state, and he is making numerous experiments on the various

Insects are found in slate, and flies and ants in amber.

kinds of apples which are recommended as excellent.

A few years ago, he sent to us some as large and fine Yellow Bellflowers as we have ever seen in this market, not excepting those from New York and Pennsylvania; and when raised in Maine they proved to be a winter apple, and some of them were fine in March. As Colonel Moulton then thought that he should make the Bellflower his leading apple, and we have supposed, from its uncertainty as to bearing, fairness, and quality, that it would not hold that high rank in New England, we lately wrote to him on the subject, and received the following communication; and though a part of a private correspondence, we take the liberty to publish it, as it contains valuable general information.

The Late Baldwin, of which Colonel Moulton speaks, is a synonyme of the Baldwin, a name which we gave to a modification of this fruit. It is usually more flat, harder, and keeps longer, than the common Baldwin, and it bears more in odd years, for instance, 1845, '7, '9. Those who complain at our applying this term to a peculiar modification of this famous fruit, are referred to the following communication for a confirmation of our views.

Letter from Colonel Moulton.

DEAR SIR: Yours of late was duly received; and in answer to your inquiries, I will state that I have five kinds of apples that may be sold to most persons for Baldwins. The kind that I call the real Baldwin, is a great bearer in even years. The tree is hardy, grows well, and will do well on very wet land, if some top-dressing is put around it annually.

The kind that I prefer, you call Late Baldwin. The fruit is larger, keeps some two months longer, and bears quite as well. This fruit has sold in Saco, the past fall, for three dollars per barrel. This apple bears nearly as well in odd as the even years. It is the best apple, taking all things into consideration, that I know of. My Rhode Island Greenings are good bearers, the fruit fair, but not equal to the Baldwins in yielding. The Bellflower has done poorly for two years past; before that time they did quite well. The tree needs close pruning, good cultivation, and a warm soil.

The Nodhead [Jewett's Red. Ed.] has done poorly with me as yet; they are very knotty. I have some trees on a warm, light soil, out of the way of the wind, which I suspect is the cause of their being imperfect. My Porter apple has not been in bearing long enough for me to ascertain its bearing properties. I have the impression that they must be well pruned, and the land dressed and cultivated to make them profitable. I have a considerable variety of Winter Sweetings, yet nothing very valuable. The Oxford Sweeting, a native apple, is the best for the table I have ever seen, but a poor bearer.

I have some others that I have not proved long enough to give an opinion on them. I have some twenty varieties of Russetings, all very poor [bearers. Ed.] but two kinds. The Golden Russet was the best bearer I had in 1847. Very good this year; makes the best dried apple I have ever seen; good, also, for pies, preserves, and quite a good eating apple. The tree is hardy, grows well, and bears neglecting. The other I call the Oxford Russet, medium bearer, keeps through the summer, is juicy, somewhat acid; very much sought after by the sick.

Respectfully yours,

JOHN MOULTON.

PORTER, Dec. 1843.

MANURES.

Second agricultural meeting at the State House, January 23. The President, Hon. Marshall P. Wilder, in the chair. Subject, "*Manures.*"

The president opened the discussion. He spoke of the great importance of manures, and said that the most fertile lands would become exhausted by constant cropping, without manure; even the rich land in the west will fail. He was not opposed to the use of stable manures, but they were expensive, and other manures equally valuable could be made at less cost. He made a compost of one cord of meadow muck, twelve bushels of ashes, and six bushels of crushed bones, which he had used with excellent success. The best manure that he had used was composed of animal manure and charcoal dust, the latter costing five dollars per cord. Charcoal is a great absorbent of the ammonia that falls in rains, and it gives it out as food for the growing plant. Mr. Pell, of New York, raised eighty bushels of wheat to the acre, by the use of fifty bushels of charcoal dust. Charcoal is also a valuable disinfectant.

Mr. J. E. Teschemacher, of Boston, stated that in this subject were three great considerations: 1. The nature and quality of the crop; 2. The nature of the soil; 3. The nature and the application of the manure. In England, the land, though well manured, failed, after a while, to give good crops of wheat, unless dressed with the phosphate of lime. We should consider what the crop extracts from the soil, and supply those elements in manure. The most important consideration is what part of the crops puts the most bone and muscle on the animal. Before Liebig was born, it was known that phosphate of lime formed bones, but not that phosphates formed muscle. All soils consist mostly of sand and clay. The former makes a stiff, strong stalk for plants; but it must be dissolved by potash, which is contained in clay. Clay does not constitute a part of plants, but it is important in retaining potash and ammonia. Clay exposed to frost falls to powder, and is excellent for compost. Charcoal is a good absorbent of ammonia, but clay will answer for this purpose, and it is more plenty. Ammonia is valuable for the growing plant, all but the seed. He considered the better way to make a compost of manure, and let it decompose or become carbonized before used. All excrements of animals and animal matter is good for manure.

Mr. Buckminster, of the Ploughman, doubted the statement that Mr. Pell raised eighty bushels of wheat to the acre. In the west the largest crop was forty bushels to the acre.

Mr. Bartlett, of the Cultivator, said that experience had taught him that to farm without manure was unprofitable. Crops failed from the exhaustion of the soil, from the ingredients carried away in the crops. In the forests and the prairies of the west, whatever grew upon the land was returned, which kept up the fertility. If all the crops taken from an acre of land was fed to a cow or a horse, and the manure that was made while the animal was con-

suming the crop was returned to the soil, there would be but very little exhaustion.

Hon. Mr. Brooks, of Princeton, inquired to what soils charcoal should be applied. He remarked that brine and plaster were good to fix ammonia. Would not these do as well as charcoal?

Mr. Teschemacher replied, that charcoal dust should be put into the compost heap and applied to any soil.

Then followed a conversation in regard to the effects of charcoal, and it was settled that it was indestructible, and not a fertilizer, but an absorbent of fertilizing gases.

Mr. Brooks said that he composted his manures in a barn cellar, and he found that sixteen loads thus prepared were worth as much as twenty-four loads as he used to apply them green, and the shrinkage was small in proportion, not more than one fourth or one eighth. In England burnt clay is used as an absorbent.

Hon. J. C. Gray, of Cambridge, said, that he used plaster of Paris as an absorbent, and that is as cheap as any substance. A great improvement had been made by composting manures, which prevented waste by burning or becoming fire-fangled, as it is called.

Mr. William Parker, of Boston, (owns a paper mill in Sudbury,) said, that we ought to take care of manure as well as make it. Farmers lost much manure by exposure to rains, winds, sun, and frost. Freezing is very injurious to manure. He uses sand under his horses as an absorbent of the liquid manure. With peat, and dust, and leach from his mill, which is similar to soap suds, he made four or five hundred loads of manure in a year. This was frequently removed to his barn cellar, and spread over the animal manure.

Hon. Mr. Leonard, of Norton, observed that economy was necessary, in order for the farmer to make a profit, as labor was high. He used the fine dust from coal-pits, in his farm yard and barn cellar; if not enough, he used fine earth.

Governor Reed said, that he was much pleased with the practical remarks. He used three parts of peat with one of animal manure, and in that way made four times as much manure.

This subject is continued for discussion, and will be reported in our next number.

BREEDING HORSES.

We clip the following from a report made at the last fair of the Windsor County Agricultural Society, by the Committee on Horses. The report is the best paper we have seen among those yet produced by the agency of our County Societies. The reasons for making the awards are given in full, with excellent practical remarks on the business of breeding horses. It will repay a careful perusal.—*Vermont State Agriculturist.*

Your committee are of opinion that there is no branch of stock-raising more profitable than the rearing of the best of horses; and they consider there is no trouble in accomplishing this, provided that none but the very best stallions are bred to, and none are bred from, any but excellent horses, which, by the way, are very scarce and hard to be obtained, and for the following reasons: Owing to the high

price good "horse flesh" will ever command, the majority of our best mares, as soon as they come to maturity, find their way into our village and city markets, and are never allowed to breed, save a few that may be returned to the country after becoming unsound in limb, or having their constitution broke down with hard usage and old age; and many that remain among the farmers are valued so highly for their labor and fine appearance, that they are never permitted to breed until they are in a similar condition to those returned from our business markets. The consequence is, that nearly all of our horses are produced from the most ordinary mares, or unsound ones. An unsoundness of the limbs may not impair the value of a breeding mare, but if she has a weakened constitution, it must more or less impair the strength, speed, and endurance of the offspring, although they may have fine forms. Your committee believe it would be far more profitable to purchase and breed from mares worth one hundred and fifty dollars than from those whose average value for the last ten years, in a sound state, has been no more than forty dollars, (and this we believe is the class of a majority of our breeding mares.) From mares of this stamp, and to good stallions, we cannot raise colts which, at four years old, would have sold, through the above-mentioned time, higher than fifty dollars to seventy-five dollars; whereas, from the first class of mares, and to the same stallions, we could with equal certainty raise colts that would command double these prices, and occasionally one may command four times as much.

Another thing that has a great tendency to multiply the number of poor horses is, that farmers too often estimate the profit of raising colts by the first cost of getting them—bestowing their patronage where they can be insured with a foal for the least money, and frequently to a horse of ordinary qualities; when, by the addition of a few dollars, they might secure the services of a horse whose stock would afford them a profit similar to that spoken of with the best class of breeding mares. It should be remarked, however, that stallions are of a much higher quality than the breeding mares. Take them as a whole, there has been a great improvement in them, within a few years. And although we may have only a few but what are valuable horses, yet there is a great difference between them,—and even among those of a very high order. Independent of the pecuniary advantages of breeding from none but the very best of horses and sires, one may enjoy according to the fancy of the owner, from five dollars to twenty dollars' worth of satisfaction, in producing a superior animal.

Allow your committee to throw out a few hints in relation to breeding colts—docking, nicking, framing. Colts should always be kept in a good condition; not extravagantly fed, yet they should have something more than dry food the first two winters. The starving of colts will not only impede their growth, but will bring on a contraction of the ribs, cords, and muscles, especially about the chests and shoulders, that will more or less impair their power, action, speed, and endurance, after coming to maturity.

It is the opinion of your committee that a horse will have the most perfect strength and action with a natural tail; yet for appearance they would recommend a moderate docking, which should be governed by the build of the animal and the character of the tail; but we should very seldom leave a dock of less than twelve inches; and the docking should be performed when the colts are one or two years old, (one year old is preferable.) Colts may be docked at these ages with less injury to them than when nearly grown; they will have more of a bush to the tail, with longer hair, and will be inclined to carry it in a more elevated position. Nicking should be

looked upon as a cruel and useless practice, which undoubtedly impairs the strength and action of the horse, and may sometimes seriously injure the constitution.

Great care should be used, in breaking colts, to have them kind; and there is but little difficulty in this, provided they have proper and gentle treatment. They very seldom need but little if any whipping. They should be learned to do their work in an easy and handsome manner, and without fretting. A horse that is trained to chafe and dance in the harness, or under the saddle, may do very well for fops and horse-jockeys, but it is not what a sensible man wants in a horse designed for service, as it is a waste of strength and action without accomplishing any useful purpose. And in forming an opinion of a restless horse, it will be well to consider whether the apparent energy and action is *natural*, or whether it is brought about by *training* and the *fear* of the *braid*. All of which is respectfully submitted.

In behalf of the Committee,
EBENEZER BRIDGE, *Chairman.*

LANGUAGE OF BARN-YARD FOWLS.

Fowls use a great variety of language that becomes familiar to those who have the care of them, and the voice of the parent is well known to the young. When a hawk is approaching, the cautionary voice of the mother induces her young brood to hide instantly. When the danger is past, a different note of her voice calls them forth.

We put a hen and her brood of chickens into a garden of vegetables to devour the insects that had become numerous. They all ate freely under the approving voice of their mother. We gently drove them to a carrot-bed, where large, green worms were on the plants. As soon as the hen came near these worms, she gave a caution to her chickens, and her language was perfectly understood, and, with implicit obedience, they made their escape from the place of danger. These are but few among numerous cases. The following extract from the "Natural History and Antiquities of Shelborne" depicts, in beautiful style, the power of language possessed by barn-yard fowls.

"No inhabitants of a yard seem possessed of such a variety of expression and so copious a language as common poultry. Take a chicken of four or five days old, and hold it up to a window where there are flies, and it will immediately seize its prey, with little twitterings of complacency; but if you tender it a wasp or a bee, at once its note becomes harsh, and expressive of disapprobation and a sense of danger. When a pullet is ready to lay, she intimates the event by a joyous and easy, soft note. Of all the occurrences of their life, that of laying seems to be the most important; for no sooner has a hen disburdened herself, than she rushes forth with a clamorous kind of joy, which the cock and the rest of his mistresses immediately adopt. The tumult is not confined to the family concerned, but catches from yard to yard, and spreads to every homestead within hearing, till at last the whole village is in an uproar. As soon as the hen becomes a mother, her new relation demands a new language; she then runs clucking and screaming about, and seems agitated as if possessed. The father of the flock has also a considerable vocabulary; if he finds food, he calls a favorite to partake; and if a bird of prey passes over, with a warning voice he bids his family beware. The gal-

lant chanticleer has, at command, his amorous phrases and his terms of defiance. But the sound by which he is best known is his crowing: by this he has been distinguished in all ages as the countryman's clock or 'larum, as the watchman that proclaims the divisions of the night. Thus the poet elegantly styles him

'—— the crested cock, whose clarion sounds
'The silent hours.'

FLAX-WATER AS MANURE.

It is well known to farmers, or it was in days of flax-raising, that flax is a great exhauster, and will not bear a succession of crops; and in Ireland and Holland, where a great deal of flax is raised, this crop is taken only once in five or six years, as it exhausts the soil of some ingredients which it requires several years to restore.

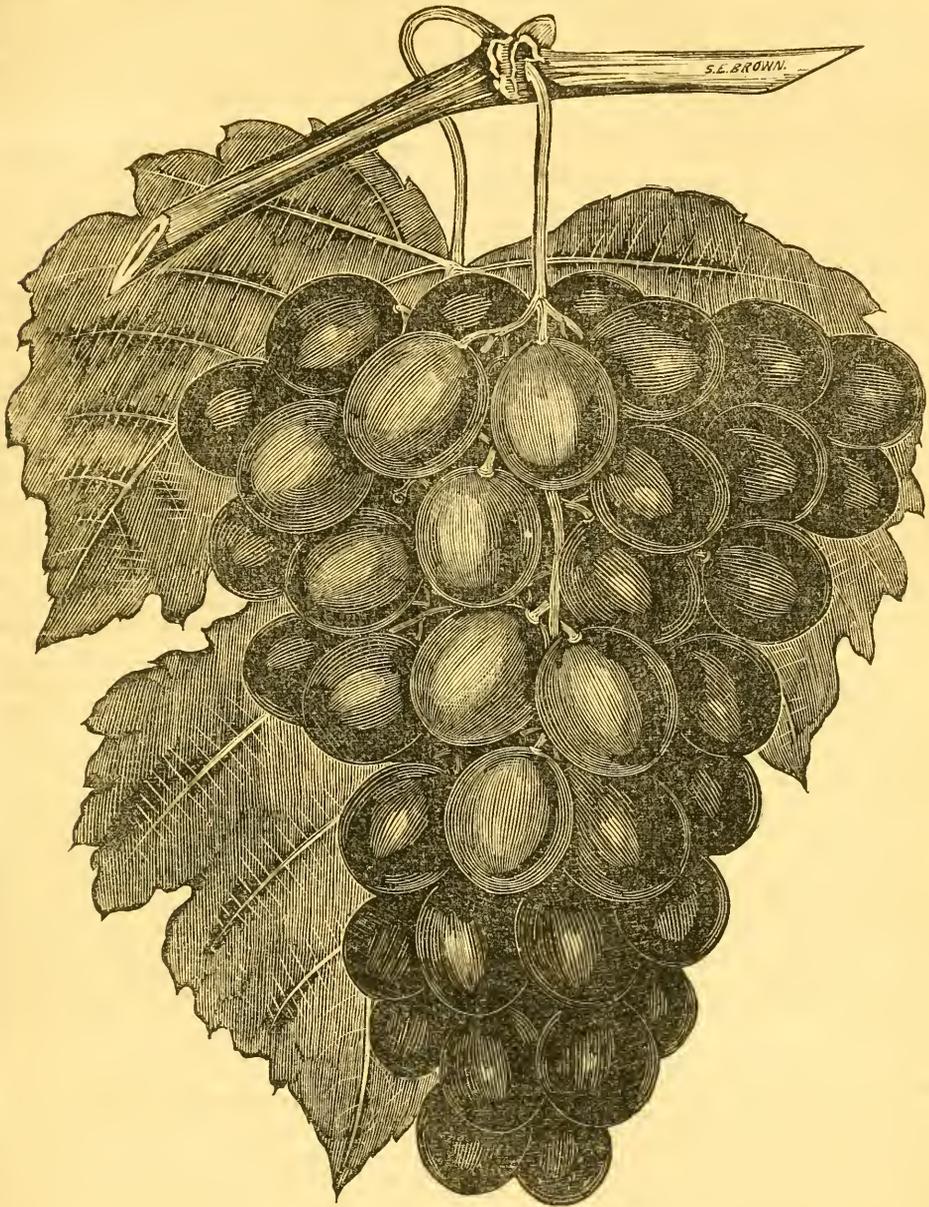
But by scientific experiments that have been made within a few years, it is ascertained that those extracted from the earth by the flax, which tends so much to exhaustion, are not in the fibre which is wanted for use, but mostly in the refuse, and the soluble parts that remain in the water in which the flax was rotted, water-rotting being the general practice in those countries.

By returning the refuse of flax, including the water, to the soil, it would bear a succession. Thus science aids the practical farmer and explains what might appear as a mystery. This view of the subject is confirmed by the following article:—

FLAX-STEEP WATER AS A MANURE FOR FLOWERS.

"I used the water in which I had flax steeped as a manure for flowers last year. I followed up the experiment this year; and although I was from home for five weeks, during which time none of the plants had been watered with the flax-steep, still I am able to say that those dahlias to which I used the water early continued to keep ahead of those not so treated. The latter grew from two and a half to three feet high, while those to which steep-water was applied, grew from seven to eight feet high, when three of them broke down, the sticks being too weak to support them against the wind; but their beauty, from the abundance of bloom, surpassed any thing that I have seen. I have not manured my garden for these last four years, being determined to keep it poor, in order to try what effect flax-water would have in producing good full-grown flowers in cold worn-out soil. I am now able to assert that none of my neighbors had such a blow of roses or dahlias as I have had; and to them I can refer, as they were witnesses of the fact. I had, by the use of flax-water last year, dahlias from ten to twelve feet high, loaded with the most perfect flowers. This rich liquid manure (for it deserves the name) will be found invaluable to market gardeners and growers of flowers. I find it to annihilate the green fly."—*J. Dickson, British Flax Mills.*

Lost wealth may be restored by industry—the wreck of health regained by temperance—forgotten knowledge restored by study—alienated friendship soothed into forgetfulness—even forfeited reputation won by penitence and virtue. But who ever again looked upon his vanished hours—recalled his slighted years, stamped them with wisdom, and effaced from Heaven's record the fearful blot of wasted time?



ISABELLA GRAPE.

We have a fine soil for the grape, and the genial influence of rain and sunshine. The great difficulty is, that we have not delicious grapes well adapted to our climate. Our native grapes, which are numerous, are usually austere or acid. Many experiments are making by raising seedlings from our native grapes, and from various distant and foreign kinds; and we have no doubt that we shall have, by-and-by, a good assortment of grapes ripening in succession during the season of this fruit.

At present the best grape for this section of the country is the Isabella. It is from the south, but it

is usually hardy here. It is a most luxuriant grower, and great bearer. The branches are large, and the berries of good size. The quality of the Isabella, when well ripened, is sweet, rich, and excellent. After being fairly tried here, it is cultivated more than all other kinds.

This grape ripens rather late in this climate, so that it fails in cold seasons, unless it is in a warm situation. But this will be the standard and principal kind, until something new is introduced. Our engraving is from a specimen presented by Mr. G. A. Godbold, Chelsea, who is not only very successful in

raising excellent Isabellas, in almost every season, but in preserving them in fine condition. They are now fresh and excellent, preserved in jars, with several thicknesses of paper tied tightly over the top.

METHOD OF TRAINING FRUIT TREES IN RUSSIA.

The severity of the winter at St. Petersburg is so great that few fruit trees will survive it, even with careful matting; to prevent the loss which is thus usually sustained, I have for more than twenty years pursued a mode of training which has been attended with complete success. It consists in leading the branches of the trees on horizontal trellises only ten or twelve inches from the ground. When the winter sets in, there are heavy falls of snow; and as the frost increases, the snow generally augments, by which the trees are entirely buried, and receive no injury from the most intense frost. The winters of 1819 and 1820 were very severe, notwithstanding which, last summer, I had a great crop of apples, and all the tender sorts, while none of the gardens in the neighborhood produced any; even many of their trees, although doubly matted, were killed. From my Green Gage and Orleans Plums I gathered ripe fruit on the 29th September last; I had also a very full crop of Morello Cherries. Another very great advantage of training trees in the above method consists in the growth of the wood; it being of equal strength, and the fruit produced being all alike, the bloom comes out much earlier, and the crop ripens sooner. The trees are always clean and free from insects; I have observed this even while some standards near them have had their leaves curled by aphides. The only cherry that does not succeed in this way is our Blackheart; this I attribute to the damps which affect the early blossoms; but in a milder climate this injury would be obviated by placing the trellis higher from the ground. When the trellis decays under the apples, I never renew it, as the trees always keep (from the strength of the branches) their horizontal position. There are other advantages of treating fruit trees in this manner: they come sooner into bearing, and their fruit is not affected by high winds. I never gather the apples, but let them drop off, for the distance they fall is not sufficient to bruise them. Probably pears trained in this way would answer well in England.

—Selected.

JOSEPH BUSCH.

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

We have no doubt that by the above plan many tender fruits may be extended farther north; and where the snow is not usually sufficiently deep to cover the branches, this could be done at a small expense by the use of litter, evergreen boughs, &c., There are many fine fruits that fail in the north from cold winters, not for want of summers sufficiently long and warm to bring the fruit to maturity.

PEAT.

Peat abounds in many parts of New England; and peat bogs are often adjacent or near sandy soils, which may be greatly improved by this valuable fertilizer. Some peat bogs that were considered almost worthless twenty years ago, are now worth two hundred dollars an acre. Many farmers with two cords of peat and one of animal manure make a manure worth as much per cord as that wholly from animals.

In some sections of this state, peat is used exten-

sively for fuel, which is an important advantage where wood is becoming scarce and high. It makes a very pleasant fire, and the ashes are good for fuel. We copy the following remarks on this subject from Rogers's Scientific Agriculture, which we noticed not long ago:—

“Peat usually consists of soluble and insoluble geine, with a mixture of undecomposed vegetable matter and some earths.” It is usually limited to the colder parts of the globe; it results mostly from the accumulation and decomposition of mosses, but also from any other vegetable matters which become mixed with it.

The lower stratum of peat beds decays, while the plants on the surface continue to grow, thus adding new matter annually, until they attain the thickness, in some cases, of thirty or forty feet. In tropical climates, the heat produces decomposition so speedily that vegetables are resolved into their elements before peat can be formed.

Peat is usually found also in low, boggy or marshy districts. According to Dr. McCulloch, “by the long-continued action of water and other agents, the geine of peat is changed into bitumen and carbon, which constitute lignite and bituminous coal: in a few instances the process of bituminization has been found considerably advanced in beds of peat.”

Peat is remarkable for its power of preserving animal matters from putrefaction.

The following is an analysis of a specimen of peat from Massachusetts:—

Soluble geine,	26.00
Insoluble do.	59.60
Sulphate of lime,	4.48
Phosphate of do.	0.72
Silicates,	9.20

100.00

When the decay is far advanced, the peat is a dark-colored and sometimes solid mass. When less advanced in decomposition, it is light brown, spongy, and contains pieces of vegetables not yet disorganized. In this state it is used in some countries as fuel. Peat is sometimes sour, from the presence of phosphoric and acetic acids: it sometimes also contains ammonia: it decomposes slowly in the open air. When mixed with lime or potash and fermenting barn-yard manure, it becomes a valuable fertilizing agent, and may be used on any soil which requires the addition of vegetable matter.

RURAL ARCHITECTURE.

The taste for ornamental planting and rural landscape is rapidly spreading. The iron roads, which now unite town and country, by almost annihilating time and space, have enabled gentlemen of wealth or leisure to escape from the dust, and heat, and turmoil of the crowded city, and enjoy the pleasures of a country life. No person, who feels an interest in rural improvement, can travel in any part of the country, and not be impressed with the great strides which have been made within a few years. More especially in New England is this taste every where apparent. Intersected in all directions, as the country is, by railroads, in the vicinity of Boston and other cities, the number of suburban residences has not only greatly increased, but they have been laid out and embellished with a degree of taste which reflects much credit upon the proprietors, when we recollect that in but few instances have practical men been consulted. We are aware that many of these suburban grounds would have far greater attractions, had they been laid out in true taste; yet their general neatness and beauty show

how great is the desire to possess something approaching that object, so much coveted — a pleasant country-seat.

We are desirous of contributing all in our power to aid in the dissemination of true taste in ornamental planting, and we shall endeavor to give more attention to the subject. Zealous as we have been to promote the interests of horticultural science, we have directed less attention to rural improvement than is our intention hereafter. Not that we consider mere plans of so much importance, as the architectural journals will be consulted for these; but to give, occasionally, specimens of some of the best examples of ornamental gardening in our vicinity. — *Magazine of Horticulture.*

For the New England Farmer.

DOVER AGRICULTURAL SOCIETY.

MR. EDITOR: The farmers of this town held a meeting last evening, and adopted a constitution for an Agricultural Society, reported by a committee chosen at a previous meeting. The following officers were chosen: Calvin Richards, Esq., President; Charles Ford and Captain Timothy Allen, Vice-Presidents; Elijah Perry, Secretary; William Cleveland, Treasurer; Daniel Mann, Esq., Deacon Calvin Bigelow, Jared Allen, George Cleveland, Ralph Battelle, John Battelle, and H. W. Jones, Directors. After the above organization, the subject for discussion which had been proposed at a previous meeting was taken up, and a lively discussion ensued. All present were well pleased. At nine o'clock the meeting adjourned to meet again in one week. — *Com.*

DOVER, Jan. 16, 1849.

EDITORIAL REMARKS.

The above is another evidence that the spirit of improvement is pervading the land, and the formation of societies will effectually encourage and disseminate this spirit, and promote the worthy objects for which such associations are established. It would be well for the country, if a society for improvement in agriculture, in all its various branches, was formed in every town in the Union. We would not except Hull, and still smaller towns. Where there are only five or six men in a town, there will be a great advantage in having a town Agricultural Society in full operation. Should there be a want of members to fill all the offices, give some two or three offices, as the duties will not be very arduous where the society is small. Associated action is powerful, and when directed to laudable purposes, it has a most salutary effect on society.

AFFECTION FOR OFFSPRING.

One of the strongest feelings of animals is that of affection for their offspring; and, indeed, so intense is this impulse among the greater number, that it may be said to exceed the care which they employ for their own preservation, or the indulgence of their own appetites. Among insects and some other of the inferior tribes, the care and solicitude of providing for their young engrosses the better half of their existence; for they labor during the prime of life to provide a comfortable nest and proper food for their offspring, which they are never destined to see, death overtaking them before they can enjoy the pleasure of beholding their future family. Many timid animals, that shrink from danger while they

are single and alone, become bold and pugnacious when surrounded by their young. Thus the domestic hen will face any danger and encounter any foe in order to protect her brood of chickens; and the lark and linnet will allow themselves to be taken in their nest rather than desert the young which lie protected under their wings. Even those animals whose general nature is characterized by savage and unrelenting fierceness, are gentle, and tender, and affectionate to their young. The grim lion fondles with paternal softness his playful cubs; and the savage bear has been known to interpose her own body between the deadly musket and her helpless offspring. But this feeling in animals lasts only for a season. After they have nourished and brought up their young, these go out from their parents, all further ties between them are broken up, and they know each other no more. How different is this from human connections! The fond mother watches over the long and helpless period of infancy, instills into early childhood lessons of wisdom and virtue, and feels her hopes and affections increase with every year that brings an increase of reason. Nor are such family ties severed by death. The child, on its part, returns the care and affection of its parents; and when old age and second childhood come upon them, the children then feel it their greatest happiness to repay in acts of kindness and attention the debt of gratitude which is justly due. What a moral beauty is thus thrown over the common instinctive affections, and how greatly superior appears man's nature to that of the mere brute! — *British Quarterly.*

PLOUGHING IN OR BURNING CORN-STALKS.

MR. BATEHAM: There is one practice among farmers at the West which I regret to see, and hope a substitute will be found. I allude to the practice of breaking down, then raking and burning cornstalks in the spring, "to get them out of the way."

The ground under the cornstalk windrows may be benefited by the ashes, but the general field is most certainly impoverished by the loss of that which should be allowed to decompose upon or beneath its surface.

Some landlords require their tenants to plough in the stalks; but ordinarily this is a somewhat difficult operation. I have heard that in the south-west portion of Ohio, the farmers use a large roller with knives, so constructed that it breaks down and cuts to pieces the stalks, (at one operation,) so that they can be easily turned under by an ordinary plough.

Will you have the goodness to inform me where I can obtain a pattern or description of such machine? or, if you do not possess the information, please make the inquiry through your excellent paper.

Respectfully yours, &c.,

H. L. ELLSWORTH.

LAFAYETTE, INDIANA, Jan. 1849.

REMARKS. — We have no knowledge of such an implement as the one referred to above being in use in this state, or elsewhere. If any of our readers have, they will please inform us. We think such a roller might be constructed without difficulty, to work on prairie and bottom lands where no stones are found. — *Ed. Ohio Cultivator.*

Temperance puts wood on the fire, flour in the barrel, meat in the tub, vigor in the body, intelligence in the brain, and spirit into the whole composition of man.

Domestic Department.

AID CHILDREN IN THEIR STUDIES.—The good mother, or other discreet member of the family, can do much to encourage children in their studies. Even when the parent is not well skilled in the branches the child is attending to, she may exercise a powerful influence by showing to the child that she is interested in its success.

If children sit down to what they consider a task, and see no other member of the family attending to study, or taking any interest in their progress, it may be irksome, especially when all the rest of the family seem to be free from care or labor, and enjoying life in a cheerful manner, apparently without the labor of thought or reflection.

Many are qualified to aid children essentially in their studies, and all have the power of encouragement, which often operates like a charm upon the juvenile mind, and causes difficulties that loomed up to a discouragement in the distance, to diminish or vanish away, on near approach, or familiar acquaintance, through the aid of a kind friend.

WHEATEN GRITS, OR CRACKED WHEAT.—We have often spoken of the great value of cracked wheat mush as an article of diet in constipation, and, in fact, for all persons, whether sick or well. Have the best of wheat—of good, plump, well-matured grain. Wash it if necessary. Have it cracked coarsely in a mill that will cut rather than crush it. The less you have ground at a time the better, for the fresh-ground article is the best. The wheat should be boiled in pure soft water; rain water is excellent. Boil this an hour at least, and two hours are still better; for the more we cook farinaceous food the better. Eat this once, and better two times a day as a regular meal, with a very moderate portion of milk, stewed fruit, honey, sugar, or molasses. But be very careful as to any or all of these condiments. If too much milk is taken, the head is oppressed, because of the stomach's too hard work; and so of the other articles, particularly sweets. This wheat, then, is one of the best possible forms of food for either sick or well.

The family of one of our patients has experimented a good deal, of late, upon making brown bread. The form that suits them best is that made by boiling the cracked wheat at least for two hours. This is then made into small cakes, with the use of a sufficient quantity of fine flour to make the dough adhere properly; the cakes are then baked without salt, yeast, or any addition whatever, and are much relished. It is one of the most foolish things in the world for a person to eat superfine bread, when he can possibly get any other.—*Dr. Shew's Water Cure Journal.*

COMMON SAUSAGE-MEAT.—Having cleared it from the skin, sinews, and gristle, take six pounds of the lean of young fresh pork, and three pounds of the fat, and mince it all as fine as possible. Take some dried sage, pick off the leaves and rub them to powder, allowing three teaspoonfuls to each pound of meat. Having mixed the fat and lean well together, and seasoned it with six teaspoonfuls of pepper, and the same quantity of salt, strew on the powdered sage, and mix the whole well with your hands. Put

it away in a stone jar, packing it down hard; and keep it closely covered. When you wish to use the sausage-meat, make it into flat cakes; dredge them with flour, and fry them in butter or dripping over rather a slow fire, till they are well browned on both sides, and thoroughly done.

TO MAKE AND FINE COFFEE.—Put a sufficient quantity of coffee into the pot and pour boiling water on it, stir it, and place it on the fire, bring it to a boil, and as soon as four or five bubbles have risen, take it off the fire, and pour out a teacupful and return it; set it down for one minute, then pour gently over the top one teacupful of cold water, let it stand one minute longer, and it will be bright and fine. The cold water (by its greater density) sinks, and carries the grounds with it.

TO EXTRACT GREASE FROM CLOTHES.—Lay a piece of brown paper doubled over the spot, and apply a hot iron.

EASY WAY OF CLEANING THE HANDS, FOR DYERS, COLORERS, &c.—Take a small quantity of potash or pearlash in your hand, pour into it a small quantity of water, rub it well all over your hands with a little sand, then wash it off, take in your hand a small quantity of chemic, pour a little water into it, and rub it well on the hands in a semi-liquid state; wash the hands well in water, and they will be clean. If not perfectly clean, repeat the operation.

Boys' Department.

ECONOMY IN SLEEPING.—It is difficult to determine how long a person should sleep, as different persons differ constitutionally, some requiring more sleep than others. But one thing is certain—that some boys sleep far more than is necessary, lying in bed eight or nine hours, when seven would be sufficient. Some lie so long that they become fatigued or tired with inaction.

If a boy sleep an hour too much each day, he will lose fourteen or fifteen days in a year, which will amount in ten years to nearly half a year; in fifty years, to more than two years. This is an important subject. Life is short, and we have a great deal to do in this brief period. How absurd, then, to waste in indolence, in a dormant, senseless state, so large a portion of precious time, which can never be recalled!

If a person would excel in any pursuit, either in business or study, he must husband his time, and sleep no more than is necessary for refreshment. The object of sleep is to give rest to the body and mind, and fit them for renewed and vigorous action; and he who sleeps merely to kill time or waste it, that it may not hang heavy on his hands, is indulging in a habit that will become so fixed, after a while, that it will give character to the whole boy and future man.

Let every boy consider whether he is wasting in bed the most precious hours of his life, and make an estimate on the loss. Let him calculate how much

he might earn, or what useful branches of study he might pursue, in the time now wasted in sleep — in a state of oblivion. Thousands of persons who shudder at the terrible thought suggested by the doctrine of annihilation, practise every day upon that very principle at which the soul recoils with horror.

A GUDE PROVERB. — The Scotch have this proverb: "A gude word is as soon said as an ill one." Will not every child, when he hears others use profane, indecent, ill words, or is tempted to use them himself, remember that "a gude word is as soon said as an ill one"? — *Well-Spring.*

POLITENESS. — Be polite at all times, and to all persons. Remember that you will lose nothing by thus doing; you will be more respected, and certainly more beloved, than you will be if you are in the habit of answering in an abrupt or unkind manner. It will also render you *happier* to do this; for if polite yourself, you will generally meet with politeness in return; and if you do not, you will still have the inward consciousness of having yourself acted correctly. — *Well-Spring.*

Health.

GOOD ADVICE. — *Patient.* Doctor, I called to see you about my health.

Doctor. Well, what is the trouble?

P. I can't say, doctor. I have been unwell a long time.

D. How long?

P. I should think five or six years.

D. How were you taken?

P. I don't now exactly remember, but I should think I felt weak all over.

D. What did you take?

P. Not very much for some.

D. About how much?

P. Several boxes of Brandreth's pills.

D. What more?

P. A number of Indian Vegetable.

D. What next?

P. A few bottles Swaim's Panacea.

D. Have you followed up this catalogue, and taken all the patent nostrums that can be named?

P. Nearly all, I think.

D. Do you think you have been benefited by any of them?

P. No, I fear not.

D. How long since you left off these medicines?

P. A number of weeks, except one kind.

D. What is your diet?

P. I eat almost every thing, and drink freely of tea, coffee, cocoa, ale, cider, and some spirits.

D. Do you use tobacco?

P. A little.

D. How much, and in what way?

P. I smoke cigars and chew — sometimes smoke a dozen a day.

D. Upon what kind of a bed do you sleep?

P. A feather bed in summer and winter.

D. How often do you bathe, or wash the whole of your body?

P. About once a year.

D. At what time do you retire at night, and rise in the morning?

P. I retire at all hours from nine to twelve o'clock, and rise usually late in the morning.

D. Is your appetite good?

P. It is variable — sometimes have none, and then again I am very voracious, eating all before me.

D. You have now given me some account of your habits and manner of living, and now what do you expect me to do?

P. I meant you to give medicine that will cure me.

D. My dear sir, I will put you on a course of life that will benefit you.

P. I want some medicine.

D. The first thing for you to do is to let all medicine alone. You have taken quite too much already. It is marvellous that you have not dosed and drugged yourself out of the world. Your stomach was never made to be a receptacle of all kinds of filth, like the Valley of Hinnom. This abominable course, which you acknowledge you have pursued for years, is of itself enough to ruin the best constitution. Besides, you are guilty of excess in almost every other respect, according to your own confession. Medicine will never remedy bad habits. It is utterly futile to think of living in gluttony, intemperance, and every excess, and keeping the body in health by medicine. Indulgence of the appetite, and indiscriminate dosing and drugging, have ruined the health and destroyed the life of more persons than famine, sword, and pestilence. If you will take my advice, you will become regular in your habits, eat and drink only wholesome things, sleep on a mattress, and retire and rise very regularly. Make a free use of water to purify the skin, and when sick, take counsel of the best physician you know, and follow nature. — *Note-Book of a Physician.*

CHILDREN. — Every romp with them is death to a score of gray hairs. Their games, moreover, present such a contrast to the rougher contest of bearded children, in the game of life, where money, power, and ambition are the stake, that it is refreshing to look at them and mingle with them, even were it only to realize that human nature yet retains something of its divine original. — *Selected.*

Mechanics' Department, Arts, &c.

IMPORTANCE OF GOOD TOOLS. — Those mechanics only who have excellent tools can duly estimate their importance. Many work year after year with poor tools, when a little time or expense would supply them with good tools, enabling them to do far more work and do it better.

Sometimes a mechanic will use a poor implement, when a good one could be obtained for one or two dollars that would last for years, and would annually make a saving of more than double the cost of the implement.

A blacksmith who had far better and more tools than was common with others in the same business, hired an Englishman to assist him. The first thing the stranger did was to make tools, and for more than a week he plied himself closely to making tools, before he would do any other work. His time was well spent, as was shown by the neatness and despatch with which he worked, after being properly prepared.

A poor saw often requires twenty-five per cent. more strength than a good one. If it be used one sixth of the time, the loss would be about one day a month, which in a year would be equal to a sum

sufficient to buy a dozen good saws. Mechanics should make estimates occasionally. They will present results in a long run that are highly important, though they may seem trifling for a single day.

MR. EDITOR: We hear a great deal about the ill effects produced by the use of lead pipe for conduits, pumps, &c. It is said to be operated upon by some water, in such manner as to produce more or less of a deadly poison, which enters into the water consumed, and which, in time, must produce, upon the systems of those who use it, disastrous consequences.

Now, if decomposed lead is injurious, I would ask, How much less injurious is decomposed copper or brass? For my own part, I should hardly know "which of the two to choose," copperas, verdigris, or lead. I am induced to make these remarks from observing that the connections (and their number will be immense) between the service pipes and the main pipes of our water works are of a composition of brass, copper, &c., soldered into the iron with lead. Now here we have "all the good things together," copper, lead, and brass. Let any one step into State Street, and see for himself — let him take one of the connections, or one of the stop-cocks up, and see the quantity of verdigris already formed upon it, before being submitted to the decomposing process, which will of necessity take place beneath the dampness of our streets; and let him say, if we are to be supplied through such materials, whether "Cochituate water" is to be a healthy beverage. Why was it necessary to use brass or composition? Why not use iron? Iron connection, stop-cocks, &c., could have been obtained, and if they were acted upon by the water, we should have had our doses of metal all of one kind, to say the least of it, — and that, I believe, admitted to be of a strengthening character.

Perhaps some one more learned in these matters can enlighten me, and prove beyond controversy that these metallic mixtures will operate as an invigorating draught, to the corporations of our good citizens; but till such light is emitted, there will be many misgivings in the mind of
SYPIHAX.

— *Selected.*

CEMENT FOR FLOORS. — It is often desirable to have a cement floor, rat-proof. The following recipe was procured, by J. S. Skinner, from Colonel Totten, of the U. S. Engineer Department.

The mortar is to be made of one part of sand to one half part of hydraulic cement, measured in rather stiff paste. Then one part mortar, thoroughly mixed, is to be used with two and a half parts broken stone or bricks, the largest pieces not exceeding four ounces in weight, or of gravel of similar sizes, or of oyster shells, or either or all of these mixed together. These coarse materials must be free from sand or dirt. The concrete thus made must be put down in a layer of not more than six inches, which will be about the proper thickness for the floor; rammed very hard, and until the coarse particles are driven out of sight, care being taken to bring the top of the mass into the true place of the floor by the first process; no subsequent addition of plaster being admissible. By the help of a straight edge drawn over guide pieces, the top surface may be made smooth and even by the first operation.

The concrete should contain no more water than is necessary to give the requisite plasticity to the mass. The floor should be covered, as soon as finished, with straw or hay, which should be kept wet for several days, the longer the better.

Repentance without amendment is like pumping without stopping the leak.

SINGULAR TREE IN NEW ZEALAND.

One of the most extraordinary trees of the forest is the rata, which, originating in a parasite, grows to such a size as to rank amongst the giants of the forest. It first makes its appearance in the form of a tender vine, clasping the trunk of some huge tree with its long tendrils, and growing both upwards and downwards, and increasing in bulk at the same time. After a while the parasite, having killed the parent trunk, establishes itself upon its roots, sends forth numerous branches aloft, which again send forth aerial roots clasping the neighboring trees; and ultimately, the rata occupies a larger space than any tree of the forest. It is under this tree that the curiosity so well known as the vegetating caterpillar is found; and instances have occurred of natives lying down to sleep under the rata having been found dead. The tree is now always carefully avoided by them. — *Simmonds's Colonial Magazine.*

CURE FOR HEAVES IN HORSES.

A farmer tells us that he has recently cured two of his horses, which had the heaves badly, by the use of the following remedy: To three quarts of sweet milk add a teaspoonful of sulphuric acid, (oil of vitriol,) and mix with the horses' feed. Give at first three times a week, and afterwards once or twice, as there may seem occasion for a few weeks longer. Our informant says there was little appearance of the heaves after the first week. — *Christian Alliance.*

BONE DUST.

An experiment, tried by Mr. Mortimer, of Silverton, furnishes a remarkable proof of the efficacy of this manure. At a recent meeting of the Netherex Farmers' Club, Mr. W. Strong, of Powhay Mills, offered to give some bone dust to any agriculturist, to be tried against guano. Mr. Mortimer took the offer, and manured a piece of land, one part with bone, another with Peruvian guano, and a third portion with farm-yard dung, leaving a small strip without any dressing. The whole was planted with turnips, and we are assured by an agriculturist who has seen them, that while on the boned ground there are turnips larger than his hat, the part left unmanured has not one so large as his finger. The guano crop is finer than the dung turnips, but by no means equal for the size, though the superior, in thickness and rapidity of growth, to that grown where bone manure was used. — *Monk Lane (Eng.) Express.*

SOMETHING FOR ALL.

So various are the appetites of animals, that there is scarcely any plant which is not chosen by some and left untouched by others. The horse gives up the water hemlock to the goat; the cow gives up the long-leaved water hemlock to the sheep; the goat gives up the monkshood to the horse, etc.; for that which certain animals grow fat upon, others avoid as poison. Hence no plant is absolutely poisonous, but only respectively. Thus the spurge, that is noxious to man, is wholesome nourishment to the caterpillar. That animals may not destroy themselves for want of knowing this law, each of them is guarded by such a delicacy of taste and smell, that they can easily distinguish what is pernicious from what is wholesome; and when it happens that different animals live on the same plants, still one kind always leaves something for the other, as the mouths of all are not equally adapted to lay hold of the grass — by which means there is sufficient food for all. — *Stillingsfleet.*

BLIND BRIDLES FOR HORSES.

Among the most absurd practices in the management of horses is the use of blind bridles. They are not only very inconvenient and uncomfortable to the horse, but they aggravate the very evil which they are intended to obviate — that of preventing the horse from being affrighted by the carriage which he might see without blinders, or from any object approaching from behind him.

In training a young horse in a chaise, we took off the blind bridle, to give him some provender, and he started with affright at the sight of the carriage; and had he not been pent up in a corner, he would have cleared. We saw from this instance the folly of the practice, and afterwards used him without blinders, first leading him up to the chaise and around it that it might become familiar, before harnessing for a few times, and we had no more trouble with him.

When any thing is approaching a horse, in the rear, it is far better for him to see it as it approaches, which he will if not blinded, than for it to come suddenly upon him, before he can see it. We had an instance of this in the same horse, while the blind bridle was used. In travelling with a gig, and walking up a hill, a friend in company came up to the horse's head, with his umbrella spread, which so frightened him that he ran away.

We name these cases, hoping that they will have some influence upon those who reason upon the subject, and induce them to abandon a practice that is attended with trouble, and sometimes with danger. We copy the following judicious remarks from J. Maddock, Farrier: —

BLIND BRIDLES. — “Yes, use your thinking powers, friends. They were given you to use, and not abuse. Blind bridles! Truly named, surely. Art never invented a more fatal thing to the eyes of horses than when she devised this plan of depriving the horse of what nature intended he should enjoy. But, says one, how are blinders injurious to the horse? Because they gather dirt and heat around the eyes. Dirt irritates the eye, and heat produces inflammation. These bridles so entrap the eyes of the horse that he is compelled to be constantly straining them, to see his way. The over-exertion of the nerve brings on disease. Eyes were not made in vain. Had they been needless, the Creator would not have located them in the head. They were placed on the corner of the head that he might have the advantage of looking in different directions. Men, in the abundance of their wisdom, concluded the horse had too much sight, and they wished to curtail it; hence the origin of blind bridles. Think of this seriously, and you will abandon the use of so destructive an appendage. Remember, that blind bridles and diseased eyes are inseparably connected. Custom hoodwinks the senses of men as much as blind bridles do the vision of horses.”

IMPROVEMENT OF STOCK.

Mr. Colman, in his *European Agriculture*, under the head of Important Practical Conclusions, makes the following remarks on the improvement of stock: —

“The fourth great matter to which I would call the farmer's attention is the improvement of his live stock. It is difficult to speak too highly of the skill

and success of the English in the improvement of their breeds of sheep, swine, cattle, and, I will add, horses. I do not say that their breeds are all such as are best adapted for the United States. I need not repeat the opinions which I have already given in this matter. Different breeds of animals are suited to particular localities; and the extent of the United States presents every variety of aspect, soil, and climate; and is marked by different kinds of husbandry, such as the raising of stock for beef or labor; the growing of wool, fine or coarse, short or long; and the produce of the dairy. These points are all to be considered in the selection of a stock for breeding.

An improved Durham short-horn would thrive and develop all his richness and beauty in the fertile meadows of Kentucky and Ohio, and the rich prairies of the west, who would become poor and dwarfish in some of the rocky and almost barren pastures of the north. But that to which I wish particularly to call the attention of the farmers of the United States is, the improvement of their stock by patient care, skill, and selection. They may import animals of improved breeds to advantage; they may cross the best of their own stocks with the best animals which they can find; and, above all, let them determine always to select the best animals for breeding, and breed only from the best; never sacrifice a superior calf or lamb to the butcher, nor be satisfied with the services of inferior animals for the increase of their stock, under which they are sure to deteriorate.”

FATTENING ANIMALS.

A memoir was read to the Academy of Sciences, at Paris, by MM. Dumas, Boussingault, and Payan, “Of Researches on the Fattening of Animals, and on the Formation of Milk.” These philosophers announce their belief that fatty matters are formed in plants alone; that they thence pass, ready formed, into the bodies of herbivori, entering the chyle duct by the lacteals, and so passing into the blood; that the first degree of oxydation forms stearine or oleac acid; a further degree produces the margarine acid, which characterizes fat; a still further degree the volatile fatty acids — in opposition to Liebig, who traces the origin of fat to the sugar or starch of the food. In confirmation of their views, they show that hay contains more per cent. of oleaginous matter than is produced in the butter from a cow fed on this hay; and that cows fed on potatoes, or other roots poor in fat, produce much less butter. They advance an influence, which bears much on rural economy, that a cow eliminates twice as much fat from a given quantity of food as does an ox; and hence the commerce of milk and butter deserves a high degree of attention. Some relative experiments on fattening pigs bear out the same general principles. — *Pol. Review.*

HINTS TO LOVERS OF FLOWERS.

A most beautiful and easily attained show of evergreens in winter may be had by a very simple plan, which has been found to answer remarkably well on a small scale. If geranium branches are taken from healthy and luxuriant trees, just before the winter sets in, cut as for slips, and immersed in soap and water, they will, after drooping for a few days, shed their leaves, and put forth fresh ones, and continue in the finest vigor all winter. By placing a number of bottles thus filled in flower baskets, with moss to conceal the bottles, a show of evergreen is easily insured for a whole season. They require no fresh water. — *Court Journal.*

NOTICES OF PUBLICATIONS.

HOVEY'S MAGAZINE OF HORTICULTURE, January number, is well filled with valuable matter.

CATALOGUE OF MOUNT AIRY AGRICULTURAL INSTITUTE. — This School, designed for instruction in scientific and practical agriculture, mathematics, and the natural sciences, is very pleasantly situated at Germantown, near Philadelphia. The principal, Mr. John Wilkinson, is an experienced teacher, having had charge of a similar institution in the state of New York.

REPORT OF THE OHIO FRUIT CONVENTION. — We are indebted to our friends, Bateham, of Columbus, Elliot, of Cleveland, and Ernst, of Cincinnati, for copies of this valuable document, which we shall examine soon.

CHEMISTRY OF ANIMAL HEAT.

The perpetual combination of the oxygen of the atmosphere with the carbon of the food, and with the effete substance of the body, is a real combustion, and is supposed to be the cause of animal heat, because heat is constantly given out by the combination of carbon, and oxygen; and without a constant supply of food, the oxygen would soon consume the whole animal, except the bones. — *Mrs. Somerville.*

MILKMAIDS TURNED PIANISTS.

A correspondent of Batcham's excellent Ohio Cultivator regrets that the rosy-cheeked variety of the genus milkmaid is fast disappearing from our native land. What a pity! I never see a farmer's wife milking, and hear the noise of a piano in the house, but I feel an involuntary sensation of pity. It puts me in mind of a young friend of mine, who married a farmer's daughter with a piano. As all the country girls in the vicinity said it was the piano that married the man, I felt a desire to disabuse them. At my first inquiry in the premises, my friend frankly confessed that so far from being cajoled by the piano, that luckless instrument had come well nigh driving him from the house. "But," said he, "she had the tact to discover my aversion, and I believe she has never played 'Bouncing Bet,' or 'Bounding Billows,' since that day. I wanted to see her milk," said he, "and with a sly, coquettish smile, she said she would gratify my curiosity. 'T would have done you good to see the nonchalance with which she stepped about among those cows, not with the dainty tread of one alike afraid of the cows and the ground they walked on; but with that graceful practised step which avoids dirt as if by intuition. And then the way she despatched her task! With what a slight of hand she made each cow yield her lacteal treasure! But the best of it all was the unconsciousness of the actress of the fact that she was more than Fanny Kemble Butler in the part she was now acting."

All connoisseurs, not directly or indirectly in the trade, will agree that a masterly performer on the piano-forte is a person rarely seen; while the number who profane sweet music, and caricature its variations, is legion! Then what a mistake it is for a farmer's daughter to spend her time and money in attempting so hapless a task, as that of becoming even an *endurable* pianist, when she can be so much more respectably employed, both physically and intellectually!

— *Genesee Farmer.*

S. W.

For the New England Farmer.

GALLS FROM THE HARNESS OR SADDLE.

MR. EDITOR: White lead, finely pulverized, is the most effective application. Rubbed on dry, or made into a paste, with milk, and applied a few times, it will also prevent white hairs growing on galled places.

In our fatiguing marches in Mexico, the above was found to be an invaluable remedy by
A VOLUNTEER.

For the New England Farmer.

THE HAPPY FARMER.

BY MRS. E. C. LOOMIS.

His home's a cot, embowered in trees,
A garden filled with fruit and flowers,
Where singing birds and humming bees
Make gay the smiling summer hours, —
A range of meadows green and fair,
And fields which well repay his care.

With joy he greets each rising sun,
And gladly hastens to his toil;
In fancy, sees the harvest won,
As covering with the mellow soil
The tiny seed, which yet will bring
A glorious autumn offering.

The golden hours, how quick they fly!
The happy day, how soon 'tis fled!
Then homeward doth the farmer hie,
And finds a table neatly spread
With many a dainty, which the field
And garden-plot so richly yield.

The evening hour is fraught with joy,
For loved ones cluster round him there;
He tastes a bliss without alloy
Which e'en a king might wish to share;
Then seeks his couch, and finds repose
Which only he who toileth knows.

LEBANON, Ct.

THE OLIO.

When adversity attends you, exert yourself, and rise above so unpleasant a companion.

He who hopes for glory from new discoveries, must not be ignorant of old ones.

Some writer says, "I once had a constant and troublesome visitor, whom I tried to get rid of. First, I essayed smoke, which he bore like a badger; then I tried fire, which he stood like a salamander. At last I lent him five dollars, and I have not seen him since."

A lover, wishing to compliment his dulcinea, by intimating that she was a celestial being descended to earth, unhappily called her "a fallen angel"!

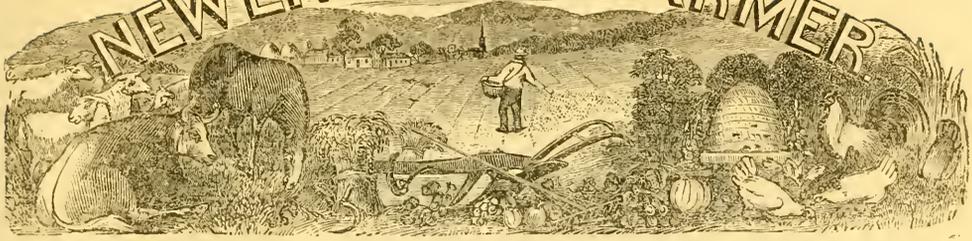
TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.

STEREOTYPED AT THE
BOSTON TYPE AND STEREO TYPE FOUNDRY.

NEW ENGLAND FARMER



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, FEBRUARY 17, 1849.

NO. 5.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

MANURES.

[Continued from p. 55.]

At the agricultural meeting, January 30, the discussion on manures was continued. Hon. M. P. Wilder in the chair, who read the statements of Mr. Colman, showing that large crops of wheat, to the amount of sixty, eighty, and even ninety bushels had been raised in England to the acre, showing the possibility of Mr. Pell's raising eighty bushels to the acre, as he had stated on a previous evening. He also showed the valuable effects of charcoal on wheat in experiments made in Ohio, the land to which fifty bushels of charcoal dust was applied yielding twenty-five bushels to the acre, while that not dressed produced only five bushels to the acre.

Hon. Mr. French, of Braintree, said, that, farm it as we may, manure is essential to good crops. Before the improved ploughs of Howard, of Prouty & Mears, and the millions which the Worcester concern throw broadcast over the world, were introduced, a celebrated Roman was asked what was most important to good farming, and he answered, thorough ploughing; and in answer to the inquiry, what was the next essential, he replied, manure.

Mr. F. said, his mode of making manure was to cart muck to the upland, after his meadow had become frozen, and expose it to air and frost, and then use it in his farm-yard, barn cellar, and hog-pens. This is worked over in winter, and again the first of May. The muck absorbs the liquid manure, and the whole mass makes excellent manure. He found from experiments that muck applied to the soil without preparation, produced only a crop of sorrel. He thought the mixing of lime with animal manure was an injurious practice. He had not been successful in his experiments with guano. Perhaps the application is not well understood. He made a compost of thirty cords of meadow muck, four thousand gallons of urine, half a ton of guano, one hundred bushels of ashes, and one hundred bushels of crushed bones, and he was well satisfied with the result.

Mr. Teschemacher spoke of the great storehouses of manure and valuable absorbents, such as clay and charcoal, which retain for the use of plants

ammonia, and other useful properties. He said that urine was one of the most important manures, as it contained phosphates and ammonia.

Cheever Newhall, Esq., of Dorehester, said, that it was a bad practice to allow rains upon manure, as they washed away its fertilizing properties. He made his compost under cover, in the barn cellar, which prevented any waste from rains, or from drying winds and hot sun. He mixed crushed bones and ashes together, and in a few days they became a jelly. He added these to meadow mud, and made an excellent manure for top dressing grass lands, far cheaper than animal manures.

Mr. Bartlett, of the Cultivator, said, that he mixed wet ashes and bones together; the ammonia was driven off, and he thought that he had spoiled his manure, but it produced good turnips.

Mr. Cole, of the New England Farmer, said, that the great object of the farmer should be to save animal manures, half of which were now wasted. The liquid manure absorbed in loam, peat, or muck, is worth as much as the solid manure. There is great economy in using dry loam, one ton of which will absorb as much liquid as four tons of moist loam. As an absorbent, he preferred plaster to charcoal, as plaster contains nutriment for plants. We need more definite experiments. When we use many ingredients in compost, we cannot tell what is useful, or what may be injurious.

Hon. Mr. Brooks, of Princeton, said, that farmers had not money to buy manure, nor did they need it; every farmer had on his farm the means of enriching it. By using mud, peat, loam, &c., to save the urine, his manure would increase; that would increase his crops, and his crops would increase his stock, and that his manure, and all go on increasing each other, until he may make his lands too rich for crops of a good quality. Burned clay or soil generally is an excellent absorbent.

On the evening of February 7, the discussion was continued. Hon. M. P. Wilder in the chair. He made a few remarks on the importance of saving manure from waste by using plaster, charcoal, carbonized clay, and other absorbents.

Mr. Teschemacher said, that on the first applica-

tion of science to agriculture, the calculation was, that if the farmer always sold his produce, his lands would become exhausted, unless he added something to his farm to keep up the fertility. But it seems that this was not the best calculation, for Mr. Brooks has shown that the farmer has, on his own land, the means to replenish the elements taken away in the crops, if he will collect all the materials he has, and use clay as an absorbent. He said that the use of plaster had been alluded to, and he would use it as an absorbent in the stable; but for other purposes he should prefer charcoal, as more powerful. He was much in favor of definite experiments, as had been suggested, but it was very difficult making them. That in Ohio, on the use of charcoal on wheat was very definite, as alternate strips were manured with it. Mr. T. made a few remarks on the value of urine applied to agriculture, of general knowledge among farmers, and the importance of the profession, calling into action the varied powers of the mind, and opening a wide field for research and investigation.

Mr. Buckminster, of the Ploughman, said, that he was glad that the attention of farmers was called to this subject. We need something to hold manure on our sandy soils. There is much sand in this state, less in Maine. Charcoal wears out in the soil, but clay is durable.

Lieutenant-Governor Reed said, that he had not sufficient practical knowledge to give information on that subject, but he had listened with much interest to the discussion, and he was astonished to learn the great value of liquid manure, as had been shown in the discussion. He had long been a close observer, and he did not think that one fourth of our farmers saved their liquid manure. He differed from those who opposed deep ploughing. He thought that manures generally wasted by passing upward. The roots of plants run down low for food; even the onion extends down eighteen inches. He said, that some rich men, who were called gentlemen farmers, expended much in farming, and they know not the cost.

The president read a communication from Mr. Joseph Breck, of Brighton, showing his experiments on vitriolized bones. He prepared a cavity of loam. He put in six barrels of bones, cost one dollar and fifty cents per barrel, wet them, and put them into a conical heap. In a few days they were hot. He then spread them out, leaving a basin in the centre, with loam around the edge, and added one carboy of sulphuric acid, often called oil of vitriol, mixed with an equal quantity of water. These operations need great caution, from the powerful effects of the acid. In half an hour the effervescence ceased. Some of it was like paste. It was covered with coal dust and ashes, about equal to the heap of bones. He used this manure for various crops, with excellent success.

Samuel Walker, Esq., of Roxbury, said, that he had been engaged in cultivation for forty years, and his heart was with the farmer. He had used, for manure, clay, peat, mud, ashes, charcoal, and lastly virgin soil, which succeeded when other manures failed. He had used large quantities of manures, till

they ceased to have any effect. On some lands he had used sand with success. To animal manure he adds sand, clay, or charcoal, to prevent its heating. He then covers it up with clay, charcoal, &c.

Mr. William Parker, of Boston, said, that some were surprised at his stating that freezing manure was injurious. One object of having a barn cellar was, to save manure from waste by freezing. He thought the loss in this state by leach from paper-mills and soap manufactories was fifty thousand dollars annually. A preparation of lye and peat makes an excellent top dressing, for grass lands, without animal manures. All animal substances are excellent manures — the bones, horns, hair, hoofs, blood, &c.

Mr. Horatio Mason, Medway, stated that, in 1840, he burned ten coal-kilns on an acre of land, and all the turf was taken off to cover the kilns. After taking away the coal, a cord of fine coal or dust was taken off and sold, and then the materials from the pits were scattered over the lot. This rendered the land very productive, and it had continued so nearly up to the present time. He could not determine whether the benefit was from coal dust, ashes, or burned turf.

Mr. H. C. Merriam, of Tewkesbury, said, that farmers in this state could not afford to raise common crops. It costs a farmer from five hundred to one thousand dollars a year for manure, and he can only attend to horticulture, where the country was thickly inhabited, with profit. He recommended one hundred pounds of saltpetre and two bushels of salt to the acre, especially for peach-trees.

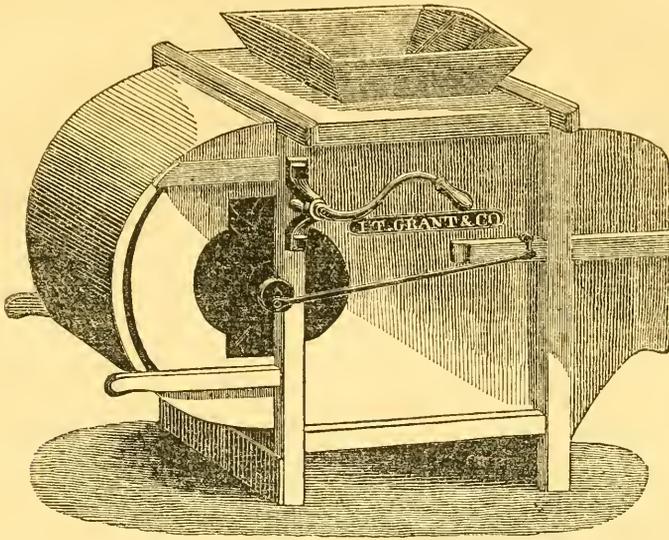
Mr. Brooks said, he thought that the gentleman mistook as to profits. He could make money by farming, the simple prose business, leaving out horticulture, or the poetry of cultivation. He could make more in raising corn here, than that gentleman could in Ohio. We do not want high manuring, nor the great growth of trees, as we have heard, for they are worthless, and this is the cause of so many trees dying after being forced to a great and unhealthy growth. Ammonia may produce a great crop of straw, but not of wheat.

Mr. Brigham, representative from Westborough, said, that lime, plaster, and charcoal, and guano, were all very good; but he believed with the gentleman from Princeton, that every farmer had the means of improving his lands on his own farm. He made his manure in his barn cellar, and his cattle had not lain out a night for eight years. He used sand under his cows; plaster was good to fix the ammonia, and purify the air. He made inquiry as to the utility of green crops for manure.

Mr. Brooks said, that plants feed mostly on the atmosphere; they draw nutriment from the subsoil, and by their application to the soil it becomes rich. He thought a green crop might be applied every third year, and keep up the fertility of the soil.

Hon. John C. Gray said, that in Scotland it had become an established principle, that it was more economical to let the crop pass through the animal, and apply the manure then, than apply the crop to the soil.

Subject for next meeting, *Farm Stock*.



GRANT'S PATENT FAN MILL.

Fan mills are among the most useful labor-saving machines used by the farmer; for with this he can always have a breeze when it is wanted to separate the chaff from his grain, and he can regulate the draught of the wind to suit his purposes. This is far better than to depend on uncertain and fitful breezes. We have known some cases, of farmers who lived in sheltered places, hauling their grain half a mile to a bleak place to winnow it. Again, for want of a breeze, they have sometimes delayed winnowing their grain, and in consequence there was much waste by rats and other small depredators, and occasionally a large animal would get access to the heap of grain, and greatly reduce it to his own injury or danger.

To avoid these evils, and to manage his crops with economy, the farmer needs a good winnowing machine, by which he will not only save labor and grain, but he will prepare it in a better state for the market, or for home consumption, or sowing.

The recent invention of I. T. Grant ranks high, and competent judges have pronounced it the best fan machine in this country. The following statement is from the inventor.

"Our fan-mills have taken the first premium at four of the New York State Agricultural Fairs, and at the State Fairs in Pennsylvania and Maryland, in 1845. We were awarded the first premium at the fair of the Mechanics' Institute, held in the city of New York, in 1846, and also at a large number of county fairs. Our mill received the highest consideration at the great National Fair, recently held at the city of Washington. It has uniformly and in all cases taken the first premium wherever it has been presented for competition. We have had frequent trials of them against time, and find no difficulty in chaffing and screening one bushel of wheat per minute, (with the large sizes,) taking out all the chaff, cockle, and smut at the same time, being the only mill that cleans wheat at one operation, known to the inventor; (all other mills have to run the wheat

through twice to perform the same labor.) They will also clean all other kinds of grain and seed at once running through the mill, (as given by the directions.) Certificates the inventor thinks needless, as we warrant our mills to perform according to recommendation. If necessary, we could procure them from many gentlemen, stating that they have saved enough timothy seed in one season, while cleaning their wheat, to pay for the mill."

These mills, of various sizes, are manufactured and sold, by Messrs. Ruggles, Nourse, & Mason. They are made in the most substantial manner, and of the best materials. Seven sieves accompany each mill, adapted to grains, grass seed, beans, peas, and other seeds, of various sizes, with directions for their use.

CATERPILLARS.

An English agricultural paper gives the following method of destroying caterpillars, which was accidentally discovered, and is practised by a gardener near Glasgow. A piece of woollen rag had been blown by the wind into a currant bush, and when taken out was found covered by the leaf-devouring insects. Taking the hint, he immediately placed pieces of woollen cloth in every bush in his garden, and found the next day that the caterpillars had universally taken to them for shelter. In this way he destroys many thousands every morning.

EARLIEST FOOD FOR BEES.

In a conversation the other day with a worthy and observing farmer, he remarked that the earliest food for bees, in the spring, is maple sap. He states that he has seen them gather round the sap troughs, in the woods, during the warm days in the spring, before the buds or tassels of the willow and other trees and shrubs had put out, sipping and making themselves glad with the sweets that they find there. It wouldn't be a bad plan, if a person had any maples in the vicinity of his hives, to tap them for the use of his bees. — *Maine Farmer.*

For the New England Farmer.

ON THE CULTIVATION OF THE CURRANT.

MR. EDITOR: The currant, it must be admitted, is one of our best summer fruits, and deserves more attention in its cultivation, than it generally receives from most of our farmers. Many still retain the old kinds, often leaving them to take care of themselves year after year, apparently satisfied with their producing a small, sour, poor fruit. All cultivators should at once discard the old varieties of the currant, and substitute for them, the new and better kinds. These should be planted in a rich soil, and kept clear from grass and weeds, and subjected to a regular system of pruning. Some cultivators prune the shrub to a single stem, but we never could see much advantage to be derived from this mode; for when grown in this form, and the stem weakened by the attacks of the borer, as is frequently the case, it is very liable to be broken off; and being deprived, before planting, of the power to send up suckers, the whole plant is lost. And we think also, in a given space, they will produce less fruit than those cultivated with several stems, in the form of a bush. But when permitted thus to grow, it should be kept clear from superfluous branches and old wood, endeavoring always to keep a succession of young and vigorous wood, of two or three years' growth; for it is on such branches that we always find the best fruit. Currants are much better to remain some time on the bushes, after they are well colored, and supposed to be ripe. They improve in their flavor, and lose much of their acidity. Knight's Early Red and Sweet Red, the White Dutch, together with all other early or comparatively sweet varieties, of the currant, should be placed on the south side of a wall or fence, fully exposed to the sun. This exposure will hasten the ripening of the fruit, and lessen its acidity. On the contrary, the late varieties, such as Lovett's Red, and the Victoria, should be placed on the north side of a wall, or fence. By adopting this mode of planting the currant, they can be brought forward much earlier in the season, or retarded to late in autumn. We also prefer these close quarters for our bushes, to more open ones in the garden, because we can the more effectually secure the fruit from the depredations of birds. In regard to the different kinds of currants now under cultivation, we would name the Red and White Dutch, two very good varieties. The latter, when fully ripe, is much less acid than the red. The Champagne, a pink-colored variety, is very handsome and is more acid than the red. Mr. Knight's Sweet Red is only comparatively so, being less acid than the White Dutch. Knight's Early Red, being about ten days earlier than any other currant; Knight's Large Red, larger than the Dutch; Lovett's Large Red, a good late currant; Victoria, an uncommonly large, fine currant; and the Cherry currant, lately introduced, said to be one of the largest currants, but not thought, by some, to be very good or productive. The black currants are medicinal, and not relished, by many persons, until they have acquired a fondness for them by frequent use, as we do for the tomato. It is then, as we ourselves do know, most delectable to the taste. The Black Grape and Black Naples are some of the best varieties of this currant. There will probably be many new varieties of the currant added to the above list, from our newly-acquired territories on the shores of the Pacific; some having already been discovered, with fruit as sweet and as pleasant as the strawberry. And when the adventurers, now pressing forward to those shores, shall have, in some measure, exhausted its mineral wealth, we hope their attention will be directed to its vegetable productions, and that we, who dwell on the

shores of the Atlantic, shall receive from them many valuable trees, shrubs, and plants.

S. P. FOWLER.

DANVERS, NEW-MILLS.

EDITORIAL REMARKS.

We are much pleased with the mode of cultivating the currant, as recommended by Mr. Fowler, as it shows the result of practical knowledge, and sufficient patience to make fair experiments. Many writers — perhaps I might say most writers — recommend training currant bushes as trees, and many cultivators have tried this mode to their loss; for in a few years the little tree becomes covered with moss, and is unproductive.

The tree form will do well for a year or two, and we suppose that some have reported on their experiments before they were fully tried; hence the recommendation of a system that will not bear the test of several years. Trained in bush form, and managed as our correspondent has recommended, the currant will flourish long, without renewal, and yield large and excellent crops.

For the New England Farmer.

SPRING BUDDING OF FRUIT-TREES.

It may not be generally known that fruit-trees can be budded in the spring as soon as the bark will slip with ease, with equally as good success as those done in the usual season.

Spring budding possesses some advantages, inasmuch as one year's growth of the bud is obtained in advance of those budded in summer or fall. Scions cut the previous fall or winter may be preserved in moss or saw-dust, so as to perform this operation as late in the season, with safety, as can be with the present year's growth of scions. This is quite a convenience when scions are wanted from a distance, as there is not so much trouble in preserving them perfectly fresh as when cut in the leaf.

The only difference necessary to make betwixt spring and fall budding is, the stock of the former should be cut off at the time of budding, three or four inches above the insertion of the bud, and a coat of shellac or other cement applied to the stock to prevent decay, and for the health of the tree. I think this should be done in all cases.

D. TABOR.

VASSALBORO', VT., 1849.

For the New England Farmer.

DIFFICULTIES IN FRUIT-GROWING.

MR. EDITOR: Having this day been making out an order for a lot of fruit-trees, I will make some remarks upon this text. How can any one determine which are the best varieties of the different kinds of fruits? The difficulties in the way are manifold. Our nursery-men's catalogues contain endless varieties, one half of which are entirely worthless; and again, no two catalogues give the same names for the same fruits.

These are evils which can easily be remedied, if those most interested would begin by learning that those catalogues will command the most notice which contain the *best* and not the *greatest* varieties; and then by agreeing upon one system of nomenclature. I am aware that attempts are being made to bring about the last, by some of the Horticultural

Societies; but large bodies move slowly, and I fear it will be a long while before they fulfil their intentions. But supposing the above difficulties are removed, there are others that are not so easily disposed of. Soils have much to do with the raising of good fruit, probably more than most people imagine, and sunshine and shade, and stimulants in the shape of manures, have their due influence. And here the doctors disagree, and create a confusion enough to make the unlearned give up in despair. One goes for a sandy soil, another says clay; one says dry soil, another wet; one recommends stimulating guano, and another some inert scrapings from the road-side; one says unfermented manure is best, and another says no; and so on to the end of the chapter. Alas! it is more than poor human nature can bear, and the book is shut without one ray of light left to guide the reader. But there is a cause, I think, for all this. Many of those who have put forth their experiments (I say it without any disrespect) have not been thoroughly educated to their business, and their minds not having been well trained to observe with the nicety that is required the delicate influences of soils and manures, have come to erroneous conclusions oftentimes. If there is any branch of business that claims an apprenticeship as long as that of Jacob's, it is horticulture. Ay, a lifetime is too short, even should it extend to a patriarchal length. The *cause* suggests the *remedy*.

The last difficulty that I shall name is unmovable. The difference is in man's palate. You may put the question to ten persons, asking which are the five best kinds of apples, pears, plums, peaches, and cherries, and no two shall agree in three out of the five. All the difficulties I have named will step in to vary the opinions of each.

My advice, then, is, that those who wish to purchase should seek information from the highest sources, and observe closely themselves, and even then they will sometimes be disappointed.

Truly yours.

JOHN G. LOCKE.

LOWELL, Feb. 1, 1849.

For the *New England Farmer*.

DEEP TILLAGE.

MR. COLE: All cultivators of the soil, I think, will agree that it is better to have a deep, rich soil, than a thin one. Crops on a deep soil are not so easily injured, either by drought or excessive rains. In dry weather, there is a better circulation of the moisture amongst the roots of plants, and in wet, a free opportunity for the excess of water to soak down, and thus be reserved for use in time of need.

While all agree with me in my views thus far, there is a great diversity of opinion in relation to the propriety of deepening the thin soils; some contending that the subsoil contains *poison*, which, if brought up and mixed with the surface soil, will surely blast all the hopes of the unlucky farmer, who shall be bold enough to attempt it, and that it is not best to bring up a particle of the earth, in order to deepen the soil, however thin it may be; while others as strongly advocate deep ploughing and deep tillage, bringing up the subsoil, to be acted upon by the atmosphere, and at length forming a deep, free soil, suitable for the production of abundant crops.

Having advocated, and practised upon the last of these opinions for more than twenty-five years, the object of this communication is, to give some hints to farmers respecting deepening the soil.

The nature of the soil and the circumstances of the cultivation should always be considered. If the subsoil is clay, or very hard and tenacious, the land

should be ploughed in the fall, that the frost may operate upon it; and if there be not an abundance of manure, a smaller quantity should be brought up; so that there may not be sufficient to injure the growth of the crops the first season, but rather to increase them. Gravelly and sandy loams may be ploughed deeper at first. If lands are wet, all the good effects of "deep tillage" cannot be attained until draining is resorted to. My practice has been, and my advice now is, to deepen gradually; but as I have before stated, how fast, depends upon circumstances. By all means, however, obtain a deep rich soil wherever you intend to till.

A gentleman, who has travelled through the eastern and southern parts of this state considerably, amongst farmers, and who is himself a cultivator of the soil, remarked to me, a year or two since, that he could pick out those farms where deep ploughing had been the practice, from the superiority of the crops, and that, upon inquiry of the owners, he was seldom or never mistaken in his opinions.

Yours respectfully,

S. M. STANLEY.

WEST ATTLEBOROUGH, Feb. 1, 1849.

To the Editor of the *New England Farmer*.

MR. COLE: Having recently turned farmer, or, rather, having resumed an occupation which I pursued, to some extent, in my earlier years, and having subscribed and paid for your *new* "New England Farmer," I shall take the liberty, usually claimed by the patrons of agricultural periodicals, to propose questions, and, perhaps, occasionally to offer solutions; and, possibly, to give advice pertaining to this department of industry; conceding to you, of course, the undoubted right of an editor, either to put me in print or cast me under the table.

The form, type, and paper, of your periodical, is superior to any thing of the kind I have seen. Its external appearance is neat as a California coin. It will furnish, at the close of each year, a convenient *hand volume*, with a fair, readable letter, free from the many effacements on the numerous folds which are necessarily made in the common folio sheet; and, if well conducted, will furnish a good library book, to which the reader may frequently recur with pleasure, as well as profit. And now I beg to advise that this fine mechanical character of the paper may be scrupulously preserved.

But perhaps you may think I am complimenting the paper-maker, the engraver, and printer, at the expense of the editor — that I commend the hand, but neglect the head. I do not intend this. The first glance at *their* work furnishes us the proof of their ability; but the length, breadth, and depth of intellectual, editorial powers are not so readily developed. I am much pleased with the articles, original and selected, which have appeared in the first numbers; and your experience, acquired in a former chair, will lead your subscribers to require much at your hands. Indeed, the *name* you have assumed devolves on you a heavy responsibility. The *old* "New England Farmer," the original of agricultural publications, at least in this part of the country, was managed with great ability, and probably effected more for the good of agriculture, — as it occupied the entire field, — than any subsequent publication in New England; but still I hope it will never be said, with truth, of you or your paper, — "*Sequitur patrem, sed non passibus æquis.*" [He follows his father, but not with equal steps. — Ed.]

I suppose it is within the scope of your plan to indulge, and even to cherish, inquiries upon all subjects relating to agriculture and horticulture; and to publish the results of experiments which have been,

or may be, instituted, to advance the interests of the farmer. Great advantages have already accrued from these interchanges of views and opinions; but it is evident that much yet remains to be accomplished; and the partial success which has resulted from the efforts which have been put forth, of this character, should stimulate every friend of industry to continued exertion in this direction. If the plan and purpose of your paper be such as I have supposed, I may, occasionally, offer communications having a more direct relation to the interests of agriculture.

Your obedient servant,

A. T. L.

BRIDGEWATER, Feb. 5.

For the *New England Farmer*.

ENTOMOLOGY.

The structure, habits, and transformations of insects, is a subject, the knowledge of which is of very limited diffusion; and yet there is no branch of natural history more deeply interesting, especially to the agricultural portion of the community. The orchard, field, garden, and even the forest, are subject to their ravages; whole crops are frequently destroyed, or so materially injured as scarcely to be worth harvesting; and the hopes of the farmer are oftentimes disappointed by the sudden appearance of myriads of them, previous to which, he indulged high anticipation of a bountiful supply for man and beast. Were a knowledge of insects more generally diffused, and the best means of checking their depredations better understood, a large amount of vegetable production might be added to the enormous quantity now grown in this region, and a great amount of information be possessed in regard to this branch of natural science, which, to him who has a taste for the curious in nature, is very interesting, as well as useful.

Within a few years, insects of some kinds have increased to an alarming extent. The rose-bug, for instance, literally swarms, devouring every thing, almost indiscriminately, and all means used to check it seem to be ineffectual. Many others might be named, which are more numerous than formerly, and which seem, from their immense numbers, to threaten destruction to certain crops.

The study of insects may appear like a trifling occupation, to many. But what can be of more importance to the farmer than the history of the multitude, whom no man can number, which are laying waste his crops? It is not expected that every one will perfectly understand the science of entomology; but any one may obtain sufficient knowledge of it to be of much benefit to him in conducting the various branches of agriculture.

The "Treatise on Insects injurious to Vegetation," by Dr. T. W. Harris, is a work which should be in every farmer's library. It contains a vast amount of information on the subject; embracing their history, and the best means of destroying them, and preventing their ravages. Agricultural papers have done much, within the few past years, in diffusing a knowledge of this subject, and the habits of many insects are now generally understood, which, but a short time since, were but imperfectly known; still there is a wide field open for study, and he who enters upon it cannot but be interested in its exploration.

O. V. HILLS.

GENERAL REMARKS ON MANURES, &c.

In the recent discussion on the subject of manures, at the State House, — a report of which may

be found on page 55, — Hon. Mr. LEONARD, of Norton, expressed the following views, which he has politely furnished for our columns: —

"It has been said, Mr. President, that farmers are the founders of human civilization; and this I believe to be true. It is a fact that has been verified, from time immemorial, that when the red man of the forest commenced the use of the plough and became a farmer, he then gave up the chase. It has also been said, that if there is any one business, calling, or profession more independent than others, it is agriculture; and this is probably true, as agriculture is a great centre, about which all other occupations in society seem to revolve. Trade, commerce, manufactures, and even the learned professions, in some good degree, owe their welfare to this branch of industry. Therefore the farming community are a part of a great whole, which must be preserved in complete harmony, or else bring death, distress, and famine, upon the land. And he who sets himself to work in good earnest, with hand and mind, to explore the hidden treasures of the earth, (and I do not here mean digging California gold, but more valuable treasures — those which sustain human life, and increase human happiness, and bless the race,) — to him who sets himself to work in earnest, with the aid of scientific research, and practical experience in this business, will be likely to turn every thing on his farm to good account. And I know of no case where scientific research and practical experience can be better applied than in the matter of manures, which is the subject now under discussion. Manures are the great stimulants that cause the earth to increase her productions; and to consider the manner of making and applying them to the ground, in the cheapest and best way, is the object for which we are here convened. Manures may be procured by the wealthy (who do not, and need not, stop to count the cost) in a manner that will not do for the man of small means. We, sir, must learn to make manure from means within our reach, and from materials gathered from our own farms. I believe, sir, that the attention of the young has been called to this subject (in part at least) by our meetings here, for a few years past, and also by the agricultural papers and pamphlets now so widely circulated. The farmers' boys begin to feel that they want more education, and in this they are right; let them have it, their occupation requires it; for is it not a fact that the soil cannot be cultivated to the best possible advantage without some knowledge of its constituent parts, so as to understand what is lacking in some soils and what superabounds in others, and thus be able to apply such manures, or helps, as will make each foot of ground more productive? To do this, it will be necessary for the farmer to bring to his aid the all-powerful science of chemistry — a science without a parallel in its extent and utility. Much has been said about the use of charcoal as a manure; and although I have never tried experiments like those which have been described by some who have spoken here, yet I have used it as a manure for more than forty years; I mean charcoal dust, or the fine, broken coal which is too small to be taken up by the rake, and is left upon the bed or hearth, and which is mixed with ashes in the process of charring. This article will keep the rain off for about one year, and, of course, will not freeze, as it remains entirely dry; so that it can be used in winter, to cover over the manure heap from the stable, and prevent the escape of the ammonia and other gases; and by this process the heap is increased both in quantity and quality, I have made some experiments with mud, or muck, from swamps. This article, when pulverized, is worth more than half as much as manure from the stable, for raising potatoes in dry, sandy ground. I have also used bone-dust, lime, ashes, and plaster, all of

which are good, but ought to be scientifically applied. Ashes will cause moss upon low lands; bone dust is very good, but costs me more than I can make it worth.

SOOT AS A MANURE.

We copy from the journal of the English Royal Agricultural Society, giving an account of the mode of cultivation and use of soot, by Mr. Dimmery.

“The general price is sixpence per bushel; the quantity used on the farm is upwards of three thousand bushels a year, one half of which is applied to the *potato*, and the other to the *wheat crop*.” A large flock of sheep gives ‘tail-dress,’ preparatory to turnips, which follow the wheat, and intervene between it and the potatoes. It is not the present object to enter into any further detail of the particular routine, but merely to make use of the preceding quotation as a prelude to the question of soot as a manure. ‘We have not,’ says Mr. Morton, ‘been able to obtain from Mr. Dimmery any idea of *how* soot acts in producing such effects, as it evidently does both on the potato and wheat crop; the effect of it is particularly evident on the wheat, for however sickly it looks in the spring, its color and the vigor of its growth is changed in a few days after it has been applied.’ Whatever may be thought of the limited and special applicability of soot, yet where it *does* suit, and is proved by continuous facts to be eminently useful, even when applied in quantity so small as twenty-five bushels to the acre, in such places it is, to all available intents and purposes, the very compound itself which comprises the essentials of the vaunted, mystified preparation of carbon, that now bores the imagination. Soot is the purest carbonized product of mineral coal; it contains oily and volatilized resinous matters, and, above all, a fixed neutral salt of ammonia, which is perfectly soluble in watery menstrua, but retentive of its ammonia till a more powerful alkali displace it; then, as by mixture with lime, potass or soda, the volatile ammonia is liberated, and revealed by its pungent odor. Without asserting what may or may not be the components of any nostrum, we unhesitatingly offer a strong opinion of the efficacy of soot — an efficacy not to be rivalled or surpassed by any known preparation whose chief component is free carbon.”

EDUCATED LABOR.

It is a very common remark, that, if we want to have any thing done correctly, we must attend to it ourselves. This arises, in the first place, no doubt, from the greater interest we have in the business, and in the next place, from our understanding best what needs to be done. Hardly any man has had charge of work, where a number of hands were employed, without being more or less hindered, as well as vexed, oftentimes by ignorance and awkwardness, to say nothing of carelessness, on the part of some of his hands. Some men seem to have no kind of thought as to *what* needs to be done in a given case; or, if that is told them, they are as much at a loss to know *how* it is to be done. They must be told what and how they shall do, and must be expected to exercise only physical strength, which is thus reduced to nothing better than mere brute force. For the ox can draw the plough or the cart as he is directed. Such men can work well for A or B, or any body that will find them a head, but they can never work for themselves. Of this class are necessarily most of our Irish and Canadian laborers. This is practically understood, and the price of their labor is graded accordingly. The six or eight dollars per

month, which is all they can earn, is all that mere lifting or carrying is worth. It is the price of *uneducated* labor.

In the same field, perhaps, with the man that earns his six dollars per month, is another that earns and receives his fifteen dollars; another who can earn twelve dollars; and still another, we will suppose, who earns ten dollars. The difference of price is made, not from a regard to their power of body, not from their age, but for the difference of skill and ability to turn off work. One of them can only do as he is told; two of them need some direction, but are tolerable hands. The first is able, in the absence of his employer, to take the management of affairs, plan out the work, assign to each his place, and, with all his care and supervision of the rest, still does more than either of them. He receives fifteen dollars per month. That is the price he receives for *educated* labor.

The education of the laborer is not wholly derived from books. At first sight it might seem not to depend on them at all. Sometimes a man without books may become a skilful workman; but his education goes on in a different way. He is thrown in contact with men that understand their business, he sees how work is done, and, by practice, he may at length be enabled to work with readiness himself. Observation, attention, have educated him. But to become a really skilful man he must become a *thinking* man. He must be able in the outset to place distinctly before his mind just what he wishes to do; he must then look carefully at the means to be used to do it; he must be able to select the best, without trying each different way first; and *then* he is ready to work. Nor must he be obliged to spend much time in planning his work. It is obvious that such a habit of thinking is best formed, in fact it can hardly be formed at all, except by the aid of books, and the education of the school-room. If the habit of thinking is only really possessed, the application to business is very easy, as every one knows who has had occasion to direct or to witness the work of two men, the one a thinker, the other a man of mere physical strength.

Any act of physical labor can, as we have seen, be reduced to three elements: first, the determining of what must be done, including the planning of the same; secondly, determining the way to exercise the requisite physical strength; and thirdly, applying the strength. The last all men possess sufficiently in a state of nature. The second depends mainly on practice, with some care and attention. The first, and most important, without which the others are comparatively nothing, — for they cannot be exercised, or, if exercised, can only be so at random, — is the result of education.

Hence arises the necessity of education to every department of labor, that labor may be rightly directed, so as to yield the greatest product at the least expense. The principle illustrated in the case above supposed of the four laborers, is being acted out, for better or for worse, on every farm and in every workshop in the state. Men are earning their six and eight, or their fifteen and twenty dollars per month, or more, according as that labor is educated or uneducated.

The improvement in the arts and in agriculture, and the competition which the business of Vermont must now meet, are making it absolutely necessary to them, as they value their success or even existence, no longer to rest satisfied with any thing short of rightly educated labor. — But of this more at another time. — *Vermont State Agriculturist*.

There are three principal elements of productive farming: — *Labor* — *Capital* — *Intelligence*.

NORFOLK AGRICULTURAL SOCIETY.

On Wednesday of last week, we had the pleasure of attending the Convention at Dedham, held for the purpose of forming an Agricultural Society for the county of Norfolk. The meeting was large, and composed of zealous and efficient friends of agriculture, from different parts of the county.

The Convention was organized by the appointment of Hon. Charles F. Adams, of Quincy, to the office of President, and of other gentlemen as temporary officers. Mr. Adams briefly addressed the Convention, on the important subject before them, remarking, that as he had inherited considerable real estate, he should give particular attention to the subject of agriculture, in order to manage it with advantage. Hon. Josiah Quincy, Jr., late mayor of Boston, addressed the Convention in his usual spirited and able manner. During the session, brief and animated remarks were made by Hon. B. V. French, of Braintree, Hon. M. P. Wilder, of Dorchester, S. Walker, Esq., of Roxbury, E. K. Whittaker, Esq., of Needham, and by others.

A constitution was adopted, and a large number of names obtained as members. A subscription was opened, headed by Mr. Adams, the president, for \$300. Messrs. French, Wilder, and A. D. Williams, of Roxbury, subscribed \$100 each.

The following officers were chosen for the ensuing year: Hon. M. P. Wilder, President; Hon. C. F. Adams, Hon. B. V. French, Hon. S. D. Bradford, of Roxbury, Cheever Newhall, Esq., of Dorchester, Rev. E. Burgess, of Dedham, Hon. Jos. L. Richardson, of Medway, Vice-Presidents; Hon. Edward L. Keyes, of Dedham, Recording Secretary; E. K. Whittaker, Esq., Corresponding Secretary; Mr. Enos Poord, of Dedham, Treasurer. Various other officers were also chosen.

A vote of thanks was passed to Messrs. Adams, French, Wilder, and Williams, for their liberal donations; and to Mr. Whittaker, for his zeal, perseverance, and efficient labors, in getting up the Convention. A letter was read from General Dearborn, mayor of the city of Roxbury, excusing his non-attendance, on account of physical inability.

Messrs. Walker and Williams set a noble example, and pledged Roxbury for \$500; Mr. Wilder, and other gentlemen, pledged Dorchester for \$400; and their example was followed by liberal gentlemen of other towns. The whole permanent fund, raised on the spot, amounted to over \$2800, with a fair prospect of adding several thousand dollars more, from members, and by donations.

Throughout all the proceedings, the utmost harmony and most gratifying enthusiasm prevailed, and the result has been auspicious, and highly satisfactory to the friends of agricultural improvement.

POSTAGE ON SEEDS, SCIONS, &c.

The post-office laws should be so modified as to allow of sending very small packages, containing seeds, scions, &c., by mail, as this would offer great facilities to cultivators, and, of course, to improve-

ments in agriculture and horticulture; and there would be an advantage in a greater revenue to government, without any extra expense, of consequence, in transportation. The following is a copy of a petition adopted by the Cincinnati Horticultural Society. We hope that other societies will cooperate in the endeavor to bring about a change so desirable.

To the Hon. the House of Representatives of the People of the United States in Congress.

The subscribers respectfully petition your honorable body for such a modification of the post-office laws as will enable those persons who are engaged in horticultural pursuits, or others, to transmit by mail, seeds, grafts, and such other horticultural objects as are occasionally sent by mail, at a rate of postage not exceeding that of newspapers, provided they be in packages of not more than two ounces in weight.

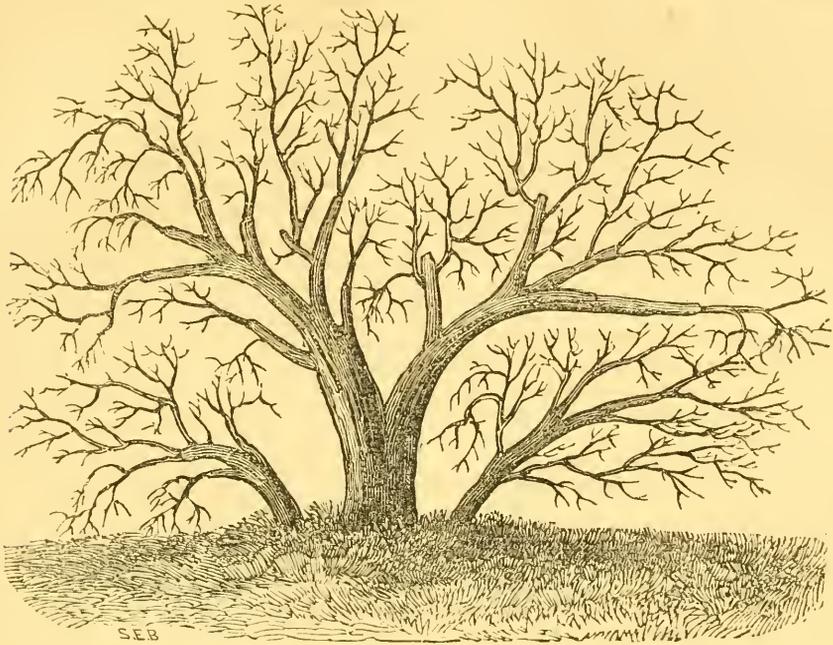
Believing that you will at once perceive the general advantage to our country from every increased facility of disseminating throughout its varied districts the various plants and fruits which may be thought useful for cultivation, and especially such as it may be desirable to test in different soils and climates, we consider it only necessary to remind you that the charge of letter postage, according to the present system, retards the progress of improvement in horticulture, and therefore deserves modification.

We might add, that we have no doubt the revenues of the post-office would be greatly increased by the proposed amendment; we consider, however, that by its adoption the public good would be so much promoted, that no question of revenue should be allowed to affect it.

PRESERVATION OF BUTTER.

At a late Council of the Royal Agricultural Society of England, a few years since, a jar of butter was received from Henry Wood, Esq., as a specimen of the successful mode adopted for its preservation when that article is intended for export to foreign climates.

Mr. Wood informed the Council that this butter had been prepared on the 19th inst., (June,) according to the process adopted in Eastern countries, where it was used for culinary purposes instead of hog's lard, which the Mahometan law prohibited, and would keep for any length of time in a perfect state of preservation, although it contained no salt or other additional substance. This preservative state of the butter was induced by the removal of scum, and the dissipation of the watery particles of fresh butter, effected by the gentlest possible application of sufficient heat to produce the result. Mr. Wood stated that in Asia this gentle heat was obtained by the natives by filling a large, open, earthen-ware pan with powdered and well-dried cow-dung, and then setting fire to it, introducing into the midst of the burning cow-dung an earthen vessel containing the butter, which thus became melted; and when the scum, as it rose, had been successively removed, and the watery particles driven off by the heat, it was poured into a jar and preserved for use. Mr. Wood suggested that a sand-bath, properly regulated, might answer the same purpose as the dried cow-dung, and as the process was so very simple, there could be no difficulty in preparing it; and that, when once prepared, the butter never became tainted. Mr. Wood stated that he carried with him to the Cape of Good Hope some butter prepared in the same way, a year previously, and which was there pronounced to be superior to the salted butter of the colony and for culinary purposes far superior to lard.



THE ENDICOTT PEAR TREE.

AGE, OVER TWO HUNDRED AND TWENTY-ONE YEARS.

Our obliging friend, Mr. FOWLER, has furnished us with the following interesting facts in regard to the famous Endicott pear tree, together with a fac simile of the same, as it appears in winter, and from which we have made our engraving on a larger scale.

In 1632, Mr. Endicott, one of the early governors of Massachusetts, received from the Court of Assistants, a grant of three hundred acres of land, situated in that part of Danvers now known as the New Mills. This tract of land he afterward called his "Orchard Farm." Tradition says, the governor brought the pear tree over when very small, in a flower-pot, when he came to Salem, in the year 1628. It is supposed the tree was first set out in his garden, at his town residence, but was subsequently removed, in the year 1633, to this farm, where it now stands. The tree still retains considerable vigor, and continues to bear fruit, in some seasons, of a good quality, although it can be ranked only in the second class of pears. It is ripe in October.

It can be seen from the cars of the Essex railroad, when passing over the Iron Factory pond, toward the New Mills, on the left hand. I saw it distinctly yesterday, and I observed that it was surrounded by a rude fence. It still very much resembles, at a distance, the wood cut I sent you, although taken some years since. It will be interesting to travellers to have their attention directed to this ancient tree.

Yours,

S. P. FOWLER.

DANVERS, NEW MILLS, Jan. 1849.

MAPLE SUGAR.

Farmers who have maple-trees should be prepared for making sugar, as warm days, producing a good

flow of sap, are common the latter part of winter and early in spring. Success in this business depends very much on being well prepared, and managing every thing with the greatest economy, and in the best manner. The following judicious remarks are from G. Butler, Clinton, N. Y., in the Albany Cultivator:—

I do not intend here to speak of the best way of producing this article in its purity. That has often been done through your columns by those better qualified than myself. The object is, to induce those having the *means*, to *make it*. Many farmers, having abundance of the sugar maple, object to engaging in this business, alleging that the sale of the fuel necessary for its manufacture would purchase an equal amount of sugar ready made. I am quite certain that my own experience, for a series of years, has resulted in a different conclusion. Take the last season for an example. About forty barrels of sap were boiled, consuming nearly three cords of refuse wood, chiefly bass and hemlock, and producing about eighty pounds of sugar and sixteen gallons of molasses. Estimating the sugar at ten cents a pound, and the molasses at fifty cents a gallon,—and the sales were all made at a higher rate,—the amount is sixteen dollars. The wood used could hardly have been sold for three dollars. My apparatus for boiling is not the most economical, being a caldron set in brick, in connection with a five pail kettle, with a spiral flue around the whole. A large sheet-iron pan is said to be far preferable, by exposing a much larger surface to the fire, by which the evaporating process is greatly expedited. A small building, contiguous to my dwelling, contains my boiling apparatus, and sufficient space for nearly two years' supply of fuel, consisting of old rails, stumps, and parts of logs too knotty or tough to be reduced for the stove, all gath-

ered in the previous season, so that when sugar time comes, half the fire may not be required to fry away the sap *outside* the kettles. A one-horse power is used for gathering, and when the "run" is over, the buckets, &c., are carefully stowed away in an upper loft, ready for the "bush" again on return of spring. It has been recommended to plug the trees, to facilitate the healing process. I have tried it one or two years, and the effect was evidently bad, and I long since abandoned it. But not to protract these remarks: let those who have not yet drawn any portion of their sugar from the maple, be assured that this home-made luxury is not less *sweet*, albeit there may be less *sweet* in the manufacture of it, than in the more common product of the cane.

LEGISLATION FOR AGRICULTURE.

From the able address of Lewis F. Allen, Esq., delivered before the New York State Agricultural Society, January, 1849, we select the following judicious remarks, which are worthy the particular attention of legislators and farmers generally:—

Agricultural education should attract largely your attention; and it is a subject which will bear a little examination. The pittance of eight thousand dollars a year is now doled out of your public treasury, a bare recognition only of the importance and value of agricultural associations, of which the stipend of seven hundred dollars is paid to your society. To call this state bounty, which we in courtesy do, is little better than mockery. Forty thousand dollars a year would now be less, compared with the wealth and resources of the state, than ten thousand dollars in 1819. Why, gentlemen, the annual appropriations to agricultural advancement from the state treasury, is less than that given to three of your colleges, where less than two hundred students yearly graduate. Appropriations amounting to more than five hundred thousand dollars of public money have been made by law for the endowment of colleges; and your literature fund is still annually drawn upon to the amount of fifteen thousand dollars in contributing to their support, while their halls remain a sealed book to him who looks only to agriculture as the profession of his life; and of the thousands who there receive the bounty of the state in aid of their education, not a tithe of them, in the course of their lives, add a dollar to the physical or productive wealth of the country. The common school, or the village academy, is the only institution where the young farmer gains admittance; and even there, as at present constituted, he hardly acquires an idea of the rudest elements of his future profession, or of those studies which properly belong to it.

These remarks are not made in a querulous or fault-finding temper. It is right that we have colleges and academies for the few who aspire to the higher walks of professional or scientific life, as well as common schools for the million. No state can be well or wisely constituted without them, and I would not abate one jot or tittle from the wholesome support which a broad and liberal system of education demands. But we should claim, and insist, that departments devoted to agricultural teaching, or to the development of agricultural science, should be established, either as branches of our seats of learning, or as independent institutions. Why should not the farmer be educated to the top of his faculties, as well as those who select what are termed the learned professions as their pursuit? If our sons cannot be taught the education they seek in the colleges, — and there are well-grounded doubts of this fact from the moral malaria too often existing within and around them, — institutions for their sole education should be aided, or erected, and endowed by the

state. This subject has been annually debated in your meetings for years past; but influenced by a strange timidity, no decided action beyond a formal and altogether harmless expression of opinion has been effected. I beseech you, gentlemen, to look at this matter. The real and personal property of this state is more than one thousand millions of dollars. Nominally, in the assessors' returns, it is rated at less than six hundred and fifty millions. In these returns, it is notorious that real estate is not assessed at over two thirds its real value, and it is safe to say, that owing to the imperfect and partial system of taxation, not one half the personal property of the state, comparatively little of which is held by the farmer, is taxed at all; and in its practical operation, agricultural capital pays two to one over that devoted to other purposes. Yet with all this burden on its back, the farming interest either stands back from your halls of legislation abashed, although nominally represented there by its members; or if, plucking a momentary courage by the congregation of its numbers on an occasion like the present, it literally shrinks away, either ashamed to ask its rights, or, if asking, couched in such a subdued tone of humility, that the legislature scarce believe you in earnest. This, gentlemen, is your attitude before the temporary power which you create to govern you! Contrast it with the conduct of those who seek a different kind of favor at its hands. Watch the thousands of applicants for corporate and exclusive privileges, and state patronage, who have in times past besieged your halls of legislation. With what confidence they approach and lay siege to the law-making power! and how like "sturdy beggars" they persevere, till, right or wrong, their importunities are granted! And in parenthesis I might continue to remark, that the history of our corporate legislation is monstrous. Some years by-gone, and banking charters were the only subject of moment before these bodies; and that legislator who did not go home with more or less of the promised shares of a successful application in his pocket, was considered as but a dull financier, or strongly suspected of having what, in private life, is called — a conscience! In later time, it has been asserted that railroad corporations have controlled your legislatures — ridden into their seats by aid of free tickets; and contemporary with them, had we farmers caught the spirit of the day, and adopted characteristic weapons of success, each one of us would have appeared with a sheep on his back, or a truss of poultry at his elbow, to lunch them into acquiescence!

ADVANTAGES OF THOROUGH DRAINING.

Draining, as understood thirty years ago in England, (and to this day with us,) merely meant the making of channels to carry off surface water, and underground drains to dry bogs, or cut off springs. It has now an entirely different meaning in the agricultural world. Mr. Smith, of Deanston, near Edinburgh, was among the first to practise and explain *thorough draining*, as it is called. His system is, that *all* land requires to be drained; that the depth of loam, or soil, containing the food of plants, seldom exceeds a few inches, resting on a subsoil, or pan of clay, or hard gravel, saturated with water. By making drains from two and a half to five feet in depth, at every twenty or thirty feet, the land becomes dry; air takes the place of water; every shower, furnished with a stock of ammonia, permeates the soil, and the result is, that instead of a few inches there are as many feet of fertile loam, the action of the atmosphere being sufficient of itself to produce the change, although, to hasten the process, subsoil ploughing is made part of the system.

The change produced by the introduction of

thorough draining in Britain, is said to be truly astonishing. Not only has the produce been greatly increased, but wheat and turnips have been grown at elevations, and in districts, where their cultivation was not before thought possible. By it, crops have been rendered less liable to disease, and harvest has been forwarded nearly a month. This will be better understood, if we reflect, that when water is allowed to remain in the soil until removed by evaporation, the heat of the sun and air, instead of being imparted to the land, will actually, through this process, produce an intense degree of cold. On the other hand, were the soil so dry as to allow the rain to pass through, it would imbibe heat from every ray that fell upon it.

The British government has considered this improvement of so great importance, that, during the last three years, large sums have been loaned to all applicants, to be expended in drainage, under the superintendence of inspectors. These loans are repaid by annual instalments of six and a half per cent., for about twenty years; and as the money is borrowed by government at three per cent., these payments cancel the loan and interest. — *Robert Jardine.*

CULTURE AND PRESERVATION OF POTATOES.

Having the present year, notwithstanding the severe drought, succeeded in growing and preserving a fine and healthy crop of potatoes, I have decided to furnish you with an account of the circumstances under which they were produced, and my opinion relative thereto, for insertion in your journal, should you deem it worthy of a place therein.

About the first of May, I planted five acres in the following manner: the soil was a dry, micaceous, sandy loam, gradually rolling, with a southern exposure; the seed used was both white and purple Mercers, principally large ones, cut into three pieces, and rolled in gypsum, and allowed to lie but a few hours after cutting. The field was an old sward, chiefly of moss and garlies; the manure applied was entirely from the yards, made from the cow and horse stables and the sties, about twenty-five two-horse loads per acre, spread broadcast before the plough — the land having been heavily limed several years previous. The planting process commenced with the tillage, by dropping the pieces of the tubers, (prepared as above,) about one foot apart, in the bottom of every other furrow, which was five inches in depth and ten inches wide, strewing them with ashes and fine charcoal, (from a locomotive, in which pine wood was consumed,) about twenty bushels per acre. The ploughing was performed in the usual manner, in lands of twenty-five yards each.

Immediately after planting the ground was thoroughly rolled. After it had lain a few days, it received repeated harrowings, lengthwise of the furrows, in the warm part of the day, which was continued until the tops were three inches in height, after which they remained without tillage until they were some eight inches high, when the cultivator was passed through, between the rows, and the weeds, if any, removed. They then received a light top dressing of gypsum, after which they remained untouched until fit to harvest, which was done as soon as the skins of the new tubers were firmly set, but before all the tops were entirely dead. We began to dig about the first of September, before the autumnal rains commenced. They were placed in a cool, dark cellar, and spread on the ground floor, about eighteen inches thick, where they remained for two months, when they were assorted and placed in bins about four feet deep, there to remain until marketed in the spring. They have so far kept perfectly, there being no visible traces of disease in the entire crop.

The yield was about two hundred and fifty bushels per acre, which was a much greater product than I anticipated on account of the excessive drought. The whole expense of the tillage of this crop did not exceed four cents per bushel, independent of the planting and harvesting, which cost not less than ten cents per bushel, making the aggregate cost of producing the five acres (including the seed, eighty bushels, at eighty cents per bushel) two hundred and thirty-nine dollars. Potatoes of the quality of mine are now worth eighty cents per bushel in Philadelphia market, which would make the net value of the crop seven hundred and sixty-one dollars. Truly, this is not so lucrative as some of the miners of California have represented the raising of gold to be; nevertheless, I think the Mercers, well roasted, set quite as well upon an empty stomach as gold ore, and, judging from the effect produced upon the morals and customs of the nations in which the precious metals are found most abundant, I much prefer being classed with the cultivators than the miners. — *American Agriculturist.*

CUTTING FODDER FOR STOCK.

That cutting fodder for stock, especially the coarser kinds, is a subject worthy of more attention among farmers, will, I believe, be admitted by all who have given it any thing like a fair trial. Cut fodder, of every description, is of more value for stock than uncut. I have known persons to be of the opinion that a horse would thrive as well upon cut hay, as he would without its being cut, and a moderate allowance of oats added.

This may be claiming too much for it; but yet there is a strong argument in its favor.

Horses, as well as other stock, appear to relish the same fodder better for its being cut; besides the advantage of eating it in half the time, allowing more for rest. It also has a tendency to obviate the difficulty to which cattle and horses are subject, in the winter season, when they are kept upon dry fodder, of being bound. But another item in the account, and by no means the least, is in using up coarse fodder, such as wheat and oat straw, corn fodder, poor hay, &c, which will be much better eaten by being cut than without.

I have repeatedly seen fodder offered to cattle and refused, and the same fodder passed through the hay cutter, returned to them apparently to their satisfaction, from the disposition they made of it. Hay that is musty is much improved by cutting, as the dust becomes liberated by the operation. There is one other benefit to be derived, which is in mixing straw, poor hay, &c., with that which is good, by which means all will be eaten. Some, however, may object, that straw and poor hay are in a manner worthless, therefore nothing is gained. But we may recollect that the time has not long since gone by, when very many doubted there being any advantage in grinding corn and cobs together for provender; but experiments have established the fact that there is economy in it; and from some experience in mixing fodder, I think the advantage fully equal to mixing cobs with corn for provender. — *Maine Farmer.*

THE EGG BUSINESS IN MAINE.

It is believed that more than 2,000,000 dozen of eggs have been sent from Maine to Boston this season, and have been sold for something like \$300,000. This sounds like a large story, but those who are engaged in the trade will fully sustain it. There are more than forty men who are busily engaged in this business. — *Hallowell Gazette.*

Domestic Department.

SYSTEM, ORDER, REGULARITY.—The importance of attending to these points must be apparent to every one who has had any experience in managing a household, and who has the important and indispensable talent of observing. Supposing, then, my young friends to be early risers, your attention should be next directed towards having a system and a regular time for every thing you do. "There's a time to work, a time to sing, a time to play," &c. According to your own desires, necessities, or tastes, have your moments or hours set apart, and when once fixed, adhere to them, and make every other thing about the house adapt themselves accordingly. In this way you will soon have united and harmonious action, and every thing will go on like "clock work." You know, always, where to find yourself, and every one else will know where to find you, and place their dependence and make their calculations accordingly. This is supposing that you are the head of an establishment, for there must always be a head to a body. But if you are not at the head, you can regulate according to that head, and if there is system about it, you are as much the governor of your time as if you were the main regulator. If there is not system about it, I pity you from my heart; you are a slave indeed, and must have the patience of Job and the meekness of a lamb, if your temper is not ruffled. From all the scourges and distempers incident to the ills of human life, God save me from the factions and disturbances of an irregular household. Behold the beautiful, grand, and incomprehensible system of all nature, the sublime regularity of the heavenly universe; watch the harmony of system, and the beauty and regularity displayed by the Divine Regulator, and who will deny that we have not there an unmistakable example, for us to follow?

Your friend,

—*Missouri Farmer.*

AMELIA.

INDULGE THE CURIOSITY OF CHILDREN.—Suppress not their curiosity or inquisitiveness. It is no failing in or of itself. It is, rather, one of the stronger incentives and the most prominent means to become learned and wise. It is generally from ignorance and pride, indifference or a peevish disposition, that a man commands his children to be silent, or reproaches them for an improper and reprehensible curiosity when they inquire about something, and are not satisfied with the first answer given them. They must indeed learn and use prudence and discretion in the company of strangers who are present, not on their own account, but on that of their parents. But parents, guardians, and teachers, if they love their children or pupils, will kindly instruct them in these things; it will be their pleasure, too, to answer their questions; not with a dry yes or no, but in such a manner as will convey the information they desire, and yield them satisfaction. Yes, they will seize these opportunities of exercising the reflection of the child or youth, by encouraging it to propose questions upon those subjects with which it is yet unacquainted.

And should these questions be of such a nature as should render their parents or instructors unable to answer them, this should not make them unwilling to confess their own ignorance upon the subject, or to excuse themselves through the imperfections of human knowledge, or to endeavor to make the inquirer comprehend that the answer to this question presupposes a knowledge which he has not, nor can have at present, but that his application to the subject will be rewarded if he persevere therein.

—*Charlottesville Rep.*

TOAST AND WATER.—This article, simple as it is, is rarely well prepared. Cut an upper crust of bread as thick again' as it is usual for toast; brown it carefully, but see that it be not burnt, smoked, or black; pour on as much water as is required, and cover the jug till cold. A slice of thinly cut orange or lemon peel infused with it, improves it greatly; it should be made early in the day during summer, and placed in the sun, when it may be drank at pleasure.

PREPARATION OF COFFEE.—In Silliman's Journal we find a notice of a memoir on coffee, by the distinguished French chemist, M. Payen. The results brought out by his chemical researches agree exactly with facts previously known in regard to this article. A great error in the preparation of coffee is, that it is burned too much, by which the liquid, when it is brought to the table, is destitute of agreeable flavor, and has a bitter, unpleasant taste. The reason of this is shown.

"Coffee, roasted only till it becomes slightly red, preserves the maximum of weight and aroma, but gives out less coloring matter. In this state, one hundred pounds are found to have lost fifteen, but have increased to the bulk of one hundred and thirty. Roasted to a chestnut color, as is commonly done, the loss is twenty per cent., while the increase in volume is from one hundred to one hundred and fifty-three. This swelling of the grain depends upon the property which the nitrogenous matter deposited within the tissue has of puffing up remarkably when heated.

"If the heat is continued until a dark-brown color is produced, and the grain is covered with a sort of glaze, the loss is twenty-five per cent., while the original quantity of nitrogen, two hundred and forty-five per cent., is reduced to one hundred and seventy-seven, being a loss of one fourth."

RECIPE FOR MAKING YEAST.—To two middling-sized potatoes add a pint of boiling water and two tablespoonfuls of brown sugar. One pint of hot water should be applied to every half pint of the compound. Hot water is better in warm weather. The yeast, being made without flour, will keep longer in hot weather, and is said to be much better than any in previous use. Try it.—*Maine Farmer.*

Boys' Department.

RESOLUTION.—We often see children attempt to accomplish what is beyond their strength or ability, when a few years old; but after passing their childhood, and becoming great boys, they often lose that resolution. When they have had time and opportunity to improve their minds, and their bodies have become firm and muscular, so that much exercise is necessary to health, they often shrink from mental or bodily labor, as though it were a task.

We would caution all boys against this love of ease. Let them look around and see what is to be done in study or useful labor, and take hold and accomplish it with decision, and when one thing is done take hold of another; keep up a resolution and determination to do every thing in its proper time, and in a proper manner. In this way there

will be no accumulation of difficulties, but every thing may be done with ease and despatch.

CRUELTY TO ANIMALS.—The following lines contain excellent hints for our young readers. Let every farmer's son read them, and when the season of birds and insects comes round again, remember to put the excellent views here given into practice.

"Thanks to my star, I can say I have never killed a bird. I would not crush the meanest insect which crawls upon the ground. They have the same right to live that I have; they received it from the same Father, and I will not mar the works of God by wanton cruelty.

"I can remember an incident in my childhood which has given a turn to my whole life and character. I found a nest of birds in my father's field, which held four young ones. They had no down when I first discovered them. They opened their little mouths as if they were hungry, and I gave them some crumbs which were in my pocket. Every day I returned to feed them. As soon as school was done, I would run home for some bread, and sit by the nest to see them eat for an hour at a time. They were now feathered and almost ready to fly. When I came one morning, I found them all cut up into quarters. The grass around the nest was red with blood. Their limbs were raw and bloody. The mother was on the tree, and the father on the wall, mourning for their young. I cried myself, for I was a child. I thought, too, that the parents looked on me as the author of their miseries, and this made me still more unhappy. I wanted to sympathize with and comfort them. When I left the field, they followed me with their eyes, and with mournful reproaches. I was too young and too sincere in my grief to make any apostrophes, but I can never forget my feelings. The impression will never be worn away, nor can I ever cease to abhor every species of inhumanity towards inferior animals."

Health.

The great error in regard to health is in neglecting to preserve it, and, when it is gone, relying too much on medicine, instead of good management, to restore it. The old and true saying, that "an ounce of prevention is worth a pound of cure," is worthy of far more consideration than it usually receives. Many persons do not truly value health while they possess it. The poet justly observes,

"How blessings brighten as they take their flight!"

EXPOSURE TO THE AIR.—The importance of attending to the habitual exposure of children to the air, is not duly estimated. At no period of life does any cause produce such permanent ill effects, as in the feeble and susceptible age of children. The bad effects of want of pure air and exercise are seen in children confined to manufactories, and in those inhabiting a dense and badly-ventilated part of a large city. Contrast these with children of the country, and we shall see a wonderful difference.

TO CURE WARTS OR CORNS.—Take the yolk of an egg, thicken it with fine salt, which apply as a poultice

at night, leaving it off in the morning. Thus continue for two or three nights, until the part affected bears a whitish appearance; then leave it off entirely; and the wart or corn, it is said, will come out, root and branch. If a little of the leaves of rue is bruised and added, it is said to be the better.

Mechanics' Department, Arts, &c.

COVERING METALS WITH BRASS OR BRONZE.—For brass, employ a solution, in water, compounded of five hundred parts of carbonate of potash, twenty parts chloride of copper, forty parts sulphate of zinc, and two hundred and fifty parts of nitrate of ammonia; and after scouring the article to be coated, properly, it is put in commotion at the ordinary temperature with the negative pole of *Bunsen* battery, the positive decomposing pole a plate of brass.

For bronze. Make use of the same preparation, and perform in the same manner, as for brass, with the exception of substituting a salt of tin for the sulphate of zinc, and apply bronze to the positive pole, instead of brass.

By means of these solutions, wrought or cast iron, steel, lead, zinc, tin, and the alloys of these metals, either with each other or with bismuth and antimony, may, with facility, be coated with brass or bronze, and after having undergone the usual coloring process they equal in beauty the finest bronzes.

When very large surfaces are to be coated, the number of pairs of plates to the battery should be increased. By this method, rough cast iron may be made to assume a very beautiful appearance, and will remain unoxidized when not exposed to the weather. For *outside work*, articles should be protected by a coating of suitable varnish. — *N. Y. Farmer.*

TO CUT GLASS OR DRILL GLASS.—Wet the implement in a solution of camphor in spirits of turpentine.

A FINE BLUE WASH FOR WALLS.—To two gallons of whitewash, add one pound of blue vitriol dissolved in hot water, and one pound of flour, well mixed.

AGRICULTURE IN NEW HAMPSHIRE.

The New Hampshire Legislature convened on the third week of November. Gov. Williams, in his short address, thus speaks on the subject of agriculture:—

Our state is emphatically an agricultural state—its interests and the occupations of her citizens essentially of an agricultural character; and as the Constitution recommends these interests to your fostering care, you will undoubtedly consider the propriety of endeavoring, by the organization of agricultural boards or county associations, to awaken an increased zeal and interest in agricultural improvements.

Agriculture, whether considered in reference to the number of persons to whom it gives subsistence, the value of its annual exports, the amount of capital which it employs, its necessity for the support of all other pursuits, the moral worth which distinguishes the people devoted to this primitive employment, or its tendency to give stability and permanency to our institutions, may well be regarded as the paramount interest of the country, and the basis of all its wealth and prosperity. — *Farmer's Monthly Visitor.*

AMERICAN FARMERS.

Many thousand farmers in New England rear large families, pay all their debts and taxes promptly, live independently, well clothed and comfortably housed, and provided for on farms of fifty acres. The plea is, that these people labor severely. This is a great mistake. They have much because they waste no time. With them there is "a place for every thing, and every thing in its place." Their horses, cattle, tools, and implements, are attended to with clock-like regularity. Nothing is put off till to-morrow that can be done to-day. Economy is wealth, and system affords ease. These men are seldom in a hurry, except in harvest time. And in long winter evenings, or severe weather, which forbids employment out of doors, one makes corn brooms, another shoes, a third is a carpenter, cooper, or tailor; and one woman spins, another weaves, and a third plaits "Leghorn bonnets." And the families thus occupied are among the most healthy and cheerful in the world. It is easy with them to reduce their wishes to their means, if convenient or prudent, and to extend their means to their wishes. — *Maine Cultivator*.

CLEARING AWAY OBSTRUCTIONS TO THE PLOUGH.

MESSRS. EDITORS: This is a subject which nearly interests every farmer in our state. Those who have travelled through different parts of our state, and have been at all observant of the state of things, must know that stumps, stones, old logs, and other obstructions, are more or less abundant. Now, Farmer Thrifty is one of those men who in reasoning, always endeavors to come at the bottom of his subject. And his first object to be accomplished is, to clear away all obstructions from the field, so that a complete unbroken furrow may be turned from one end to the other; this, as Farmer Thrifty says, is beginning at the right end of business.

Ploughing is the grand operation in husbandry. If a field be poorly ploughed, it cannot yield a good crop, however skilfully managed in other respects. And let the question be asked, what proportion of the arable land in our state is capable of being well ploughed? Much has been said lately in regard to improvements in the construction of ploughs. But of what avail is the most consummate skill in the making of this grand instrument of agriculture, if our fields are to remain encumbered with stumps, roots, stones, &c.? A well-constructed stump machine should be owned in every neighborhood where stumps abound; and I have heard Farmer Thrifty say that he wished that the inventive genius of some mechanic would make us off just the right kind of thing for extracting stones from the ground. After procuring suitable implements for performing all this business, it will not be so great a task as might be imagined, to clear away all obstructions from our arable lands. Farmer Thrifty says that he has determined to persevere in this business, till his whole farm is entirely cleared of obstructions to the plough. Let us, then, gentlemen farmers, imitate this worthy and patriotic citizen, and the agriculture of the state of Maine shall be placed on equal or higher footing than that of Great Britain. — *Old New England Farmer*.

NEW DUCK.

There has been read to the Zoölogical Society the description of a new species of Duck, (*Fuligula ferinoides*) by Mr. A. D. Bartlett. Three examples having passed through the hands of Mr. Bartlett,

which appeared to resemble rather too closely to admit of their being hybrids, as was supposed of the first which occurred, the author was induced to examine all the species of this genus which are known to inhabit Europe and America. The result has been his conviction that the birds exhibited are not only new to Britain, but have hitherto escaped the knowledge of naturalists altogether. The capture of a female will complete the evidence ingeniously adduced by Mr. Bartlett; and his discovery will be a subject of interest to the students of British and northern ornithology, to whom a new species is now a thing scarcely to be hoped for. — *Book of Facts*.

IMPOLICY OF BURNING GREEN WOOD.

Few things show the tenacity with which we cling, even after the clearest demonstration that such is the truth, to antiquated error, than the fact that there are many individuals, at the present day, who religiously believe, and, what is worse, so far as regards the comfort of themselves and families, practice the doctrine that green wood for fuel is better, and of course more economical than dry. We think the present season one most admirably adapted to cure such an error as we conceive this opinion to be; and now, while the farmer is suffering with cold fingers from his green wood fire, and he is in good earnest lamenting the leanness of his wood yard, we would request him candidly to review the whole subject, and ask himself whether he had not better desert a position which both sound theory and daily experience show is no longer tenable.

The direct experiments of Dr. Black on fuel, and the later ones of Count Rumford, as the best mode of producing and economizing heat, have, in conjunction with the labors of others, demonstrated the very great loss those sustain who use unseasoned wood for the purpose of fuel. Making an estimate of the various kinds of green wood, hard and soft together, and of the same wood when thoroughly seasoned by exposure to the air, the difference is found to be equal to at least one third of the whole; and if dried at a temperature of one hundred, the difference will exceed this proportion. Green wood, therefore, contains at least one third its weight of water, and allowing a cord of such wood to weigh three thousand pounds, there will be one ton of wood and half a ton of water in every cord. That the wood will not burn so long as this water is present in the wood, all will admit; it must therefore be evaporated or driven off in the form of steam; or, in other words, caloric, or heat enough from other sources, must be combined with the water to boil away half a ton, or about one hundred and twenty gallons; and as this heat mostly passes off in a latent state, no possible benefit is derived from so great a waste.

The amount of dry fuel necessary to perform this operation of boiling away half a ton of water every farmer can estimate for himself; and we think no one can avoid seeing that whatever this amount may be, it is a total loss to himself. It is true, as many argue, that the consumption of a green stick of wood is less rapid than that of a dry one; but such forget, it seems, that a much larger quantity must be constantly kept on the fire to produce the same degree of heat; and that until the green wood has absorbed from other sources sufficient heat to expel the water with which it is charged, the fire is dull and the heat feeble; there is abundance of smoke, but combustion goes on slowly, or not at all.

Since the fact of the difference between the weight of dry and green wood as stated above is indisputable, we think that those who have considerable quantities of wood to move would do well to bear it in mind, as by attending to this circumstance, a very

great diminution in the amount of labor required may be made; and the striking off the transportation of thirty-three tons in one hundred, all will agree, is no trifling affair. To labor is honorable; but it is time our farmers should learn that to expend it needlessly is not profitable. — *Genesee Farmer*.

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

Farmers are now generally learning the utility of seasoning wood before it is used, not only as a matter of economy in the use of fuel, but convenience is an important consideration, as a fire may be made, and a room warmed, or any process in cooking performed, in far less time by the use of dry fuel. The scarcity of wood has been one inducement to save fuel in every possible way, and that this may be accomplished by the use of seasoned wood no one will deny who has made a fair experiment.

SLOW MOTION OF OXEN.

Mr. J. Reynolds, of South Strafford, Vt., makes the following judicious remarks on the cause of a slow motion in oxen, referring to an article on this subject, on our 30th page:—

One of the principal causes of the slow motion of oxen is in the motion of the man who trains or drives them. I have noticed that a slow man always has slow oxen, and on the contrary, a man of quick motion has quick oxen. Another thing, I think many teamsters talk too loud to their oxen. They will hear as quick as a man when called to their food, which proves that their hearing is good. Why, then, should the teamster scream so as to be heard half a mile, or more?

FARMERS' MEETING AT HANOVER, N. H.

We learn, from the Granite State Whig, that farmers and other gentlemen friendly to improvement, of Hanover, Lyne, and Lebanon, lately met in Hanover, for the purpose of discussing various subjects relating to agriculture. Asa Huntington, Esq., was chosen chairman. S. Flint, Esq., of Lyne, read an essay on Feeding Stock, after which the various points in the discourse were discussed. Other gentlemen were appointed to deliver essays at future meetings. This is but an instance of thousands of cases of the kind which should occur in the country, and which will take place when farmers are awakened to the importance of association and combined action, in effecting improvements in their profession.

APPLES ON PEAR STOCKS.

We are indebted to Mr. William Elliot, of Greenfield, in this state, for the following facts on this subject, and we should be pleased to receive the result of other experiments that tend to its elucidation.

I notice an inquiry in the *New England Farmer*, of January 20th, "Whether the apple has been grafted into the pear, in this section." It has been done, with good success, in this town, on a pear-tree of the Bell variety. Mr. William Mitchell has kindly furnished me with a sample of the apples

which grew on this pear-tree, and which I send you. You will perceive they are of rather diminutive size, and beginning to decay. The reason for this is, they are the "last pickings." Mr. Mitchell has owned, for a number of years, the piece of land on which this pear-tree stands; and he informs me that the tree bears well every year, both pears and apples. The pears are of quite an indifferent quality; the apples are fair in size and of good quality. Should you wish further information in regard to the tree, I will endeavor to obtain it.

REMARKS.—The specimens of fruit forwarded as above, are beautiful and of excellent quality. — Ed.

ACKNOWLEDGMENTS.

Of Mr. Samuel Pond, Cambridgeport, excellent specimens of Easter Beurre pears, which he raises and ripens to perfection, though this is a very uncertain kind in less skilful hands.

Of Messrs. Hyde, Newton, Yellow Bellflower, a superior fruit, but rather uncertain in most climates; and Seaver Sweet which is one of the finest sweet apples.

Of Colonel Edward Parsons, West Springfield, Bag's Favorite, a large, handsome apple, flattish-conical, yellow ground, mostly covered with red. The quality is very good, and it is highly esteemed by cultivators in that town, where it originated on the farm of Colonel Aaron Bag.

From Mr. John Washburn, Plymouth, Holmes apple. This is a small fruit, of a beautiful yellow color, and excellent flavor. Fine for the private garden. The size is rather small for the market, large size being an important requisite, to make fruit current among our New England dealers. Perhaps this is the case elsewhere. Mr. Washburn informs us that this apple flourishes remarkably well on a sandy soil.

From Charles H. Perkins, Weathersfield, Vt., a variety of apples. Jonathan, an excellent and beautiful red apple, but rather small for the market. One kind, large, and remarkably fair and handsome, but the quality is hardly first rate.

From Mr. S. Baldwin, Brighton, Catalac pear, of enormous size; an excellent variety for cooking; late fall and early winter.

We have from our friends other fruits, but too green for trial. Inquiries as to the Red Russets will be answered in our next number.

NOTICES OF PUBLICATIONS.

NEW MUSICAL WORK. — Mr. Charles H. Keith, of this city, has just published a new manual for choirs, called "THE ANTIQUARIAN." It contains a choice collection of the most admired pieces, by such composers as Billings, Holden, Belknap, Luther, Pleyel, and others of their stamp, and will doubtless be a valuable addition to our text-books for churches, as well as private use. It is a work which has long been wanted by the lovers of true melody, and will, no doubt, be introduced very generally into our churches. Published by C. H. Keith, Boston.

AN ADDRESS delivered before the New York State

Agricultural Society at the Capitol, in the city of Albany, January 18, 1849, by Lewis F. Allen. We are indebted to B. P. Johnson, Esq., for a copy of this valuable production. An extract from it may be found on another page.

BURNING CLAY FOR MANURE.

A writer in one of the English Journals has given some account of burning and applying the burnt clay as a dressing for wheat and clover. He used about one thousand bushels to the acre, and his wheat and clover were greatly benefited by it. His mode of burning was to plough up the clay in a dry time, and after piling up a sufficient quantity of fuel, somewhat in the manner of our making a coal-pit, though not so compact, — for he used stumps and such like fuel, — he piles on the clods or lumps of clay, laying it pretty high, inasmuch as the heat rises. Care should be taken to prevent the fire from bursting out. This burnt clay is then spread, a roller passed over to crush the lumps, and a bush-harrow passed after in order to spread it more equally.

ANIMAL MATTER AND PEAT.

There are other sources of alkali, for converting peat into soluble matter. Of these the chief is animal matter. Here we have ammonia produced. It has been actually proved by experiment, that a dead horse can convert twenty tons (or cubic yards) of peat into a valuable manure, richer and more lasting than stable dung; "a barrel of alewives is equal to a wagon load of peat." The next great and prolific source of ammonia is the urine. The urine of one cow for a winter, mixed up, as it is daily collected, with peat, is sufficient to manure one half an acre of land with twenty loads of manure of the best quality, while her solid evacuations and litter, for the same period, afforded only seventeen loads, whose value was only about one half that of the former. — *Dana's Muck Manual.*

AGRICULTURAL.

All of the settlements on the coast of Texas, from Galveston down, seem to have a sleepy appearance, and the people a gentlemanly contempt for manual labor; there is a great want of energy; the soil is good, excellent, generally speaking, and produces finely, when cultivated; but there's the rub. The only crop that at present exceeds their expectations, and argues favorably for the speedy settlement of the country, is that of "tow-headed children;" their attention to that branch is praiseworthy, and the "returns" thereof are really astonishing. They raise fine pears, (pairs.) The style of dress adopted for this vegetable race, partakes of that of the Sandwich Islanders in former times, when their costumes were limited to a feather in the hair and a ring in the nose. — *N. O. Delta.*

TO CLEAN WHEAT.

I suppose every farmer has a good fanning mill. Then let him make a large box with three apartments, about sixteen inches high, and about two feet wider than his mill — the length at his pleasure. Fit these partitions so as to set his mill on the two partitions; having the legs just go down in the two outside apartments; this you can move to any part of your farm with your mill: one part will catch the wheat and the screenings, and the other the headings. — *Prairie Farmer.*

THE OLD OAKEN BUCKET.

BY S. WOODWORTH.

How dear to this heart are the scenes of my childhood,
When fond recollection recalls them to view!
The orchard, the meadow, the deep-tangled wildwood,
And every loved spot which my infancy knew; —
The wide-spreading pond, and the mill which stood by it;
The bridge, and the rock where the cataract fell;
The cot of my father; the dairy house nigh it;
And e'en the rude bucket which hung in the well!
The old oaken bucket, the iron-bound bucket,
The moss-covered bucket, which hung in the well!

That moss-covered vessel I hail as a treasure;
For often, at noon, when returned from the field,
I found it the source of an exquisite pleasure,
The purest and sweetest that nature can yield.
How ardent I seized it, with hands that were glowing!
And quick to the white-pebbled bottom it fell;
Then soon, with the emblem of truth overflowing,
And dripping with coolness, it rose from the well;
The old oaken bucket, the iron-bound bucket,
The moss-covered bucket, arose from the well.

How sweet from the green, mossy brim to receive it,
As, poised to the curb, it inclined to my lips!
Not a full-blushing goblet could tempt me to leave it,
Though filled with the nectar that Jupiter sips.
And now, far removed from the loved situation,
The tear of regret will intrusively swell,
As fancy reverts to my father's plantation,
And sighs for the bucket which hangs in the well;
The old oaken bucket, the iron-bound bucket,
The moss-covered bucket, which hangs in the well.

THE OLIO.

THE LORD'S PRAYER. — How many millions and millions of times has that prayer been offered by Christians of all denominations! So wide, indeed, is the sound thereof gone forth, that daily, and almost without intermission, from the ends of the earth, and afar off upon the sea, it is ascending to Heaven like incense, and a pure offering. Nor needs it the gift of prophecy to foretell, that, though "heaven and earth shall pass away," these words of our blessed Lord "shall not pass away," till every petition has been answered; till the kingdom of God shall come, and his will be done on earth as it is in heaven. — *Montgomery.*

Speaking of the ancient Romans, Johnson said, "They were a people, who, while they were poor, robbed their neighbors; and when they became rich, robbed one another.

An Irishman, speaking of the rapacity of the clergy in exacting their tithes, said "By St. Patrick, let a farmer be ever so poor, they won't fail to make him pay his full tenths, whether he can or not; nay, they would, instead of a tenth, take a twentieth, if the law permitted them."

A wise girl will win a lover by practising those virtues which secure admiration when personal charms have faded.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, MARCH 3, 1849.

NO. 6.

S. W. GOLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

PREPARE IMPLEMENTS.

Before spring's work commences, farmers should have all their implements in readiness, whether they purchase or make them. Wheels, carts, ploughs, harrows, drags, rollers, and various other implements and machines should all be in good order in due time, that there may be no delay in the busy season for want of these useful things.

A farmer who has timber, and is ingenious, or can get a neighbor who is skilled in the use of tools to assist him, can often construct coarse, rude implements cheaper than he can buy them. But small tools, and all machines and implements that require nice work, may be purchased at a much cheaper rate than the farmer can make them.

It will cost a farmer three times as much to construct a plough in the old-fashioned mode of employing the carpenter and blacksmith, as it will to buy ploughs of the best construction. And the improved ploughs now sold at the agricultural stores require so much less draught than the old, rude implements, that they are cheaper at the usual prices than the home-made ploughs are at nothing. These remarks are unnecessary, at the present day, in most parts of the country.

Some tools have been so much improved, that they bid defiance to all competition, excepting that which has been the result of long experience, great ingenuity, and expensive implements and machinery in their construction; and it is far better for the farmer to buy such superior tools at a moderate price, than to use heavy, bungling implements, if he could have them as a present.

Let a farmer procure his implements as he may, he should now commence his preparations, if he is not already about it; for spring, with its long, busy train of operations, will soon be upon us, and we must be careful, lest, in the sudden change from the rigid cold of winter to the genial warmth of spring, old Time shall gain an advantage, and find us unprepared. A good preparation for spring and summer's work, by having all implements prepared and of the best construction, is a great deal towards the accomplishment of the labor.

EVERGREENS FOR SHEEP.

Evergreens are not only excellent food for sheep, which may often be used to considerable extent as a matter of economy, but they are very wholesome as a green food when sheep are kept long on dry fodder. Sometimes evergreens may be used as a matter of necessity, when hay is scarce, and save animals from great suffering and starvation, which occasionally occur from unusually long and cold winters. Colds and other diseases in sheep have been cured by the use of evergreens.

Pines of different kinds are among the best evergreens for sheep; hemlock is also excellent; spruce and fir, if not equally good, are very useful. Sheep are fond of browse of almost every description. They bear with difficulty a long confinement to dry fodder, and they should be relieved by the use of roots, evergreens, or browse; all of which they eat with great eagerness.

PURE AIR FOR ANIMALS.

As the weather becomes warm, those farmers who have been careful to make their animals comfortable by close buildings, during the cold winter, should be equally careful to supply them with pure air, as warm weather approaches. If many animals are in the same apartment, or near each other, in close shelters, and exposed to the gases arising from the manure, the atmosphere around them becomes contaminated, and the animals are very liable to become diseased.

In ventilating a barn or stable while the weather is rather cool or chilly, carefully avoid directing a fresh draught directly on the animals, for, like human beings, they are liable to colds, under great exposure. Plaster, charcoal powder, and various other absorbents, spread on the floor where stock are kept, are excellent for imbibing the gases arising from manures, and rendering the air pure. Common earth, of almost every description, as loam, sand, gravel, pulverized peat, and sods, &c., are good absorbents, tending to render the air purer, and save the manure; and some of these are within the reach of every farmer in the country.

SOWING GRASS SEED IN MARCH.

When the land is well prepared the previous fall, March, as soon as the ground is bare, is a very favorable time for sowing grass seed. Those farmers who sow herdsgrass and red top late in August and early in September, omit sowing clover till March, as it is liable to be winter-killed if sown at the time of the other grass.

Some sow nearly all their grass seed in March, preferring it to all other seasons. But when the land is ready for sowing late in summer, or early in fall, that season is preferable, as the grass will get a start and yield a larger crop than if sown in March. Yet when the land is not prepared till late in autumn, the most favorable time for sowing is March. If the land be in good condition, the crop will be pretty good. We have sown seed in the middle of March, and had a crop so large that some of it lodged. When sown at this season, no harrowing, brushing, or raking in of the seed is necessary; and these operations on the wet land, would be far worse than useless. The seed falling on the wet soil is sure to vegetate before it is warm enough to dry the surface of the soil.

We have been astonished at the amount of water the seed would sustain, not only without any injury, but with the best success. We have sown grass seed in March, when there were puddles of water that we could not drain off, as the ground was frozen. We sowed seed on the water, supposing that it would vegetate after the water disappeared; and it has often vegetated the earliest and best when sown on the water, which shows the hardy nature of the seed as well as of the grass.

OSAGE ORANGE FOR HEDGES.

Some of our friends have made inquiries as to the value of the Osage orange for hedges. It has been tried in the west and highly recommended. As we have seen at our exhibitions fruit of this plant, it has doubtless been tried in this section, and we should be pleased to learn whether it is hardy in this climate, and whether plants are for sale sufficiently low for the use of hedges. We copy the following article from the *Prairie Farmer*, an excellent paper, published at Chicago, Illinois.

Having watched with some interest the experiments made with different shrubs for hedge, (which have generally failed,) I am highly pleased with a large nursery of the Osage orange belonging to Mr. Young, of Jerseyville. It looks to me more like material for a live fence than any thing I have ever before seen. And although rather incredulous, (having never paid a dollar for multicaulis, Rohan potatoes, or Baden corn,) I have engaged four thousand trees for next year's planting. They are to be set about one foot apart, in the fence row, and are to be ploughed or hoed till they get a good start. One advantage possessed by the orange is, it is thickly set with remarkably short and stiff thorns; and, unlike all other thorn, it is of a rapid growth, and will make a fence in three or four years sufficient to turn any thing, from a rabbit up—growing from six to eight feet in one summer. It has a straight tap-root, and, like the hickory, never sprouts from the root, but

always from the stump when cut or broken down; it will stand very thick in the hedge, and if a patch is killed by fire or any other means, its durability is almost equal to live oak, and will stand a dead thorn bush, that nothing will touch, until plants can be raised in their place. Mr. Y. will sell them at one dollar per hundred.

WHEAT AFFECTED BY MANURE.

The following article, from Colman, shows very different qualities in wheat, produced from the use of different manures. Whether literally correct or not, there is no doubt that this, like many other analyses, approaches near the truth. It is well known by bakers that there is a great difference in the qualities of wheat raised on different soils. Those who use paste of wheat flour find that wheat raised in some sections is superior for that purpose, as it contains a large amount of gluten.

QUALITY OF WHEAT.—That the qualities of wheat grown depend to a considerable degree upon the kind of manure employed, there can be no doubt. Some experiments in reference to this matter, made by a German farmer, may be interesting to our readers.

Wheats manured as underneath, produced as follows:—

	Gluten.	Starch.
1. With human urine, . . .	35.1	59.3
2. " oxen's blood, . . .	34.2	41.3
3. " human excrements, . .	33.1	41.1
4. " dung of sheep, . . .	22.9	42.8
5. " dung of goats, . . .	32.9	42.4
6. " " horses, . . .	13.7	61.6
7. " " pigeons, . . .	12.2	63.2
8. " " cows, . . .	12.0	62.3
9. Soil not manured, . . .	9.2	66.7

It is impossible to say how far these experiments are to be depended on; and how far they have been confirmed by other experiments made with the same intention. Two things are quite remarkable in respect to them; the one is the different qualities of grain grown with manures of the greatest efficacy, and that grown without any manure, being a difference of nine and thirty-five; and the comparatively low result of pigeon's dung, which is generally rated very highly, and supposed to take its place with guano. The manner in which the animals whose manure was used for the experiments were fed, is a circumstance which may have materially affected the result; for the qualities of the manure of the same animals, under different courses of feeding, may be expected to be composed of different elements, and so to give different results; so complicated necessarily are all experiments of this kind.

WOOD AND COAL ASHES.

Mr. Franklin Wiggin, of Stratham, N. H., inquires for something more definite in regard to the experiment of Dr. Shurtleff, in raising potatoes, and using ashes in the manure, as published on the twenty-third page of this volume. In regard to the coal ashes, we would answer, that the term is applied exclusively to the ashes of anthracite and bituminous coal, not to charcoal dust. Anthracite is hard coal, and bituminous is soft coal, as named in the article referred to. As Mr. Wiggin wishes to know the proportions of coal ashes, wood ashes, and horse manure, in Dr. Shurtleff's experiment, he will much oblige us by answering the inquiry.



A Group in the Flock of S. W. Jewett, Esq., Weybridge, Vt.

MERINO SHEEP.

At an early period, several races of sheep received particular attention in Spain, and the Merinos held a conspicuous rank, and were brought to a high state of improvement, and were the most distinguished race in that country. But the laws were strict against their exportation until the invasion of Spain by the French, when the confiscation of some flocks, and some owners being under the necessity of selling, rendered their acquisition more convenient, and large numbers were sent to this country about forty years ago. Hon. William Jarvis, Chancellor Livingston, and Gen. David Humphreys are distinguished for their enterprise in introducing this valuable race of animals into our country.

The Merinos are the principal sheep in the United States for fine wool, and this is the leading object with those who keep them. They are hardy and adapted to different climates and locations. Their fleece is of a moderate size, but short and very compact, and well filled with yolk, which protects the animal against inclement weather. For the shambles they are inferior to our common native breed, or the South Down, Leicester, and other foreign breeds celebrated for excellent mutton.

In various sections of our country, large flocks of Merinos have been kept with profit; and although they have been long in the country, and extensively propagated and disseminated, yet first-rate animals of this breed still sell at high prices.

BLACK PRINCE STRAWBERRY.

This strawberry is a foreign variety, of recent introduction, and it has not yet been tried extensively in this country, but it is very promising. As Mr. Eaton had made experiments on this strawberry, we wrote to him for his opinion concerning it; and though his answer was in a private correspondence,

we take the liberty to offer to the public his valuable remarks on this strawberry.

Thompson, in the Catalogue of the Horticultural Society of London, has placed against the Black Prince Strawberry the character or mark signifying "that it has been ascertained to be of inferior quality," and remarks of it, that it is a "shy bearer." Kenrick, in his Orchardist, following this high authority, places it among the "outcasts."

It is a pistillate variety, and highly productive. Its sterility in the Society's gardens was probably owing to its being grown without a staminate in its vicinity. The high character given to it by Mr. Downing induced me to make a trial of it, and I procured my vines from him. It is much superior to most of the varieties which of late years have been introduced into notice, and I believe it will become a favorite with *amateur cultivators*. The vines are hardy, standing the winter without protection, and very vigorous in their growth. The fruit is of an ovate form, of a dark color, nearly black, with a fine glossy surface, rendering it very beautiful; flesh is juicy, rich, and delicious, but not of very high flavor; ripens from fifteenth of June to first of July. It is not so well adapted to culture for the market as some other varieties, the flesh not being sufficiently firm to bear carriage so well, and its period of ripening not being of long duration.

Yours, &c.

L. C. EATON.

PROVIDENCE, R. I. Jan. 1849.

For the *New England Farmer*.

COAL ASHES FOR MANURE.—GRAPES.

FRIEND COLE: In looking over the debates in the last two numbers of thy valuable paper, on the subject of manures, I do not find any notice taken of anthracite coal ashes. It occurred to me that it might be profitably used as an absorbent, or medium to take up the urine, &c., in our vaults, for the reception of chamber water from the house. Why would it not take the place of charcoal or plaster? Perhaps the thing has been fully tested, but as I had not seen an article on the subject, I thought it well

worthy of notice, in these days of economy, when coal is our cheapest fuel, and wood is becoming too expensive for common use.

I am not desirous of appearing before the public with my small experience in horticulture, and still smaller ability of telling what I *do know*; but one experiment of mine, which succeeded to a charm last season, I think it would be well to lay before our horticultural brethren who are "known by their fruits," and that is the engrafting of the grape.

I took my cuttings from the Diana Grape, (which is the best native hybrid I know of,) at the usual time of pruning in the fall, and laid them in the earth out doors until the first of August, and then inserted them into our common native grape by cleft grafting near the earth, and soon had the satisfaction of seeing my effort crowned with complete triumph over what I had before supposed an impracticability, having failed in every former effort, from the fact of not knowing the *exact time* to do it — to guard against bleeding or drying up. I am confident we can now forward the Diana, Isabella, and Catawba, so as to count on their crops with as much certainty as we can on the Indian corn crop, — believing, as I do, that the early habits of our native will have a tendency to shorten the time needful to ripen the above-named varieties. My Diana Grapes ripened about two weeks before the Isabella. I therefore place them in the following order as to time of ripening: 1st, Diana; 2d, Isabella; 3d, Catawba.

Respectfully,

JAMES OLIVER.

LYNN, 2d Mo. 17, 1849.

EDITORIAL REMARKS.

Coal ashes are a good manure for all kinds of lands. We have seen excellent effects from their use; and in some experiments we have found them very useful. Yet we are not prepared to say what is their value, nor to what lands and crops they are best adapted; but we may give the result of experiments at some future time, after varied experiments. We have found them excellent for turnips on a clayey soil; but this was a single experiment.

We are pleased to learn that the Diana Grape is so early. It has been doubtful whether it would be any earlier than the Isabella, and some think that it will be as late as its parent, the Catawba. We find the Diana very hardy, and of luxuriant growth. The fruit is excellent, and from our experience and observation, we have thought that it was a little earlier than the Isabella.

SWINE.

At the fifth agricultural meeting at the State House, February 13, Hon. M. P. Wilder in the chair, the subject was Farm Stock; but the discussion was on swine.

The president read a letter from Mr. Wilkinson, the principal of Mount Airy Institute, Germantown, Pa., giving a highly favorable account of the Dutchess County breed of hogs, a cross of the Berkshire and Leicester breeds, which he made while in the state of New York. He considers them the best breed.

Mr. Josiah Stickney, of Boston, gave an account of the Suffolk and Middlesex breeds, which he had imported and propagated. He said that their being

poor breeders, as had been stated at a previous meeting, was owing to high keeping. They breed well with common keeping. They fatten well at any age, and more readily than other breeds. At eight months old, with good keeping, they weigh about two hundred pounds; at one year, three hundred pounds; and at eighteen months, four hundred pounds. Their pork is superior, and sells at extra prices. By mixing the Suffolk and Middlesex breeds, the former was improved in size, without any apparent deterioration in quality. As to form, the Suffolk are not long, nor long-legged, small bones, thick set, not round, but rather deep.

Mr. David Haggerston said, that while on the farm of Mr. Cushing, he had considerable experience with the Berkshire, Mackay, and China breeds. He preferred the Mackays; the Berkshires were good for hams: the China was the poorest. He had tried the Neapolitan, but gave them up, as they were much like the China. He said, that there appeared to be two kinds of Mackays; one breed were workers, in making manure; the other breed was indolent. The first cross of different breeds will be an improvement; further crossing will cause deterioration. He had seen the Suffolk breed, and he liked their appearance very much.

Mr. Stickney said, that he imported three China pigs, and as he did not like the breed, he gave them away.

Hon. Mr. Brooks remarked, that what had been said did not alter his opinion as to imported stock. The gain of the Suffolk breed, as stated by Mr. Stickney, was no more than what was common with our native hogs, as they often gain over a pound a day. He said, that a hog would not grow so well with high keeping as with moderate fare. He asked Mr. Stickney the cost of making pork. Mr. S. had not estimated it, but he could keep three Suffolk as cheap as he could two of common breeds.

Mr. Wilder said, that the Suffolk pigs fattened easily.

Mr. William Parker, of Boston, said, that he had seen them, and he was much pleased with their appearance. There was a pleasure in having handsome animals.

Mr. Buckminster, of the Ploughman, said, that he hoped that no great stories would be told of the Suffolk breed, as all would be running into them. It is best to learn their true value. He fattened one very easily last fall. They have small bones, small head, nose, and tail.

Mr. Cheever Newhall, of Dorchester, said, that he found it more profitable to buy hogs at Brighton, and fatten them, than to raise them; and he thought that a gain of one pound a day was very good.

Mr. Elijah Perry, of Dover, thought it was very difficult to ascertain which was the best breed, unless an exact account was kept of the cost of keeping.

Mr. H. C. Merriam, of Tewksbury, said that he found from experiments that pigs from old sows were larger than those from young ones, under the same management.

Mr. A. G. Sheldon, of Wilmington, said, that some

years ago, he went into the state of New York, and purchased what is called the grass-fed breed. From these he made selections, which proved to be very valuable. The Berkshires had been extolled too high, and he was the first that spoke against them in that house. Yet they had been valuable in crosses, and they were now valued too low. He had a cross of the Berkshire and grass-fed breed, which were excellent. As to feeding swine, no one thing is so good as every thing. They do best on variety. He thought imported hogs not so good as our natives, yet they make an improvement by crosses. He had found, contrary to his prejudice, that the pork of hogs fed on slaughter-house offal was very sweet. They eat nothing excepting what persons eat, but it is in a different state.

Mr. H. B. Pearson, of Harvard, said that he had an excellent breed of hogs, which he had kept eight years, without deterioration. He keeps as many hogs as cows, feeds with skimmed milk in summer, with small potatoes after the season of digging, and at last with corn. The pork was sweet and cheap.

Mr. Brooks said, that sixty quarts, or one hundred and twenty pounds, of skimmed milk would make eight pounds of cheese, weighed when six weeks old, worth four cents per pound, which is about half a cent per quart for the milk; ten quarts, or twenty pounds, of skimmed milk will make one pound of pork, worth six and a half cents, which is six and a half mills per quart for the milk; or sixty quarts of milk will make six pounds of pork, worth thirty-nine cents. He said, that he was not in favor of working hogs. Working hogs will not fatten well. He thought it was better to mix soil with the manure, and put it under a shelter.

Mr. Proctor, president of Essex Agricultural Society, made a few remarks only, owing to the lateness of the hour; but he has kindly furnished us with the following interesting communication.

MR. EDITOR: As you were pleased to express an interest in the facts which I communicated to you to-day, relative to the feeding of swine and the making of manure by their aid, on the town farm in Danvers, I will endeavor to state them as distinctly as I may, as learned from Mr. W. Merrill, chairman of the overseers, and Mr. Hathaway, master of the house. I have frequently seen their mode of management, and have entire confidence in what they say.

The town farm is situate about two miles from the village. About one hundred acres of it are under cultivation. The soil is naturally shallow, and is made productive by judicious culture and the application of manure, most of which is obtained from the hog yards.

On this farm there are usually kept from twenty-five to thirty hogs. The practice is, to purchase the shotes from the drover, when they are about six months old, and to keep them about six months. The swine are slaughtered twice in the year, in the spring and in the autumn.

During the year ending March, 1848, —	
50 pigs were purchased at a cost of	\$285 00
40 of these pigs were sold to the butchers for	\$1012 00
10 were retained for the use of the house, estimated	223 00
Amount of produce of pork,	\$1235 00
Value of proceeds over and above the first cost,	\$950 00

being an average value of nineteen dollars. Their average weight when purchased is estimated to have been one hundred pounds. Their average weight when slaughtered, after having been kept six months, is estimated to have been three hundred pounds. Consequently the average growth of the pigs would be about one and one ninth pounds per day. This growth, when we take into view the manure and expense of their feed, is worthy of notice. The principal part of the feed of the hogs is derived from the offal obtained at the slaughter-houses in town, and also from the dressing of the heads and feet. This is prepared for the hogs by the inmates of the house, who have the care of them. No grain is given them until within six weeks of their being slaughtered. Then they are allowed as much as they will consume without waste. A main object in the keeping of these hogs, is to secure the manure made by them for the improvement of the farm, which exceeds one hundred loads annually.

Convenient apartments for their feed and lodging are arranged on the northerly and westerly sides of the yard. The yard extends about ten rods by four, is lower in the centre than on the sides — covered with small stones. Twice in the year it is covered with a coating of mud from the swamps and meadows near by, say from nine to twelve inches deep. Near by the yard is a pump, from which the swine are daily supplied freely with pure water, in which they delight to move in the warm season. All the waste vegetables and other materials that are found about the farm and the kitchen, are deposited in the yard for the use of the hogs. The benefits accruing from this department of labor are thought to be greater than any other on the farm. It will be remembered that at an establishment of this kind there will always be found old and feeble persons, who can attend to these duties, who cannot do much labor in the fields. It will also be recollected that the shotes are selected from the droves by experienced persons, and that they have so long been accustomed thus to rear swine, that they now have some pride in succeeding well. I am well aware that single hogs, and sometimes two or three together, have been known to gain a pound and a half a day; but I think it is not common for a herd of fifty together to average a gain of one pound per day.

I am induced to communicate these facts in consequence of the interest awakened at the agricultural meeting, relative to the comparative value of the different breeds of swine. If you will refer to the experiment made by Mr. Francis Dodge, lately published in the Transactions of the Essex Society, you will find the average growth of his seven hogs was less than one pound a day, notwithstanding they were reared on a first-rate farm, and abundantly fed with the products of the dairy, and with grain. The small expense of the feed of the swine on the town farm constitutes a distinguishing characteristic in their management. I presume the offal is purchased for less than half that it would require to purchase grain for the same animals. This offal also contributes very materially to increase the quantity of manure. My own belief is, that manure thus made is the best that can be had for the growth of Indian corn, and that Indian corn, viewed in all its bearings, is one of the very best crops to be cultivated by Massachusetts farmers.

Very respectfully,

Your obedient servant,

J. W. P.

DANVERS, Feb. 19, 1849.

NEAT CATTLE.

At the agricultural meeting on Tuesday evening, Hon. Mr. Leonard, of Norton, vice-president, in the

chair, — the subject, Farm Stock, — the discussion was on Neat Cattle.

The president said, that he had only attended to native stock: the subject was broad, and he invited gentlemen generally to take a part in the discussion.

Mr. Buckminster, of the Ploughman, said, that the Massachusetts Agricultural Society imported Devons and Ayrshires a few years ago, and we have heard but little about them. He had a bull and heifer of the Devon stock, that did well on common keeping, but he could not determine whether they would be superior. He was much pleased with their form and color. Generally, imported stock was no better than native.

J. W. Proctor, Esq., of Danvers, said, that he considered our native stock as descendants of the Devons. He thought our native cows were the best. In his neighborhood, the Oaks and Nourse cows had been noted for their dairy qualities. He thought the Ayrshires the best cows for milk. The Durhams are not noted for milk, and they require extra keeping. He then made a few remarks on the management of swine, which appear in his communication on another page. In answer to inquiries, Mr. P. remarked, that he knew of no descendants of the Oaks or Nourse cow.

Hon. J. C. Gray said, that in regard to our native cattle, they were well managed, in some cases, as to keeping, but not in breeding. No pedigree is kept. It has been said, that the North Devons of England do not give an abundance of milk, but it is of a good quality. Our best native cows do not produce their like. He had a calf from Captain Randall's importation, which made a good cow, but she was small. Our climate is favorable to cattle, and much improvement may be made by breeding from our best natives, and crossing with foreign stock.

Mr. Sheldon, of Wilmington, said, that by crossing with the Durhams, our cattle had been improved for working oxen and for beef, but not for milk. No one kind is best for all purposes.

Mr. Elmer Brigham, of Westboro', said, that stock should be adapted to the farm and purposes required. For working hogs, he would select what he should call the *Rhinoceros* breed. We have no native breed of cattle. Our natives are of all shapes and colors; but no breed that can be relied on. Imported stock has made an improvement in our cattle. We can have fine animals of our native cattle. He had for years raised native cattle with care, and he was sure of good animals.

Mr. H. B. Pearson, of Harvard, inquired of Mr. Brigham, the marks of a bull that would produce a good milking cow.

Mr. Brigham replied, that he would select a bull from a cow having good marks and a good character as a milker.

Mr. Proctor said, that the gentleman had answered well. When young, he knew several generations of cattle, continuing for fifteen years, all excellent milkers. We should select the bulls and heifers from the best milkers, and avoid associating animals together that are kindred.

Mr. H. C. Merriam, of Tewksbury, said, that differ-

ent breeds were adapted to different locations. Great improvement had been made in our native stock by the introduction of foreign breeds. There is a greater number of fine cattle in Worcester county than in any other section of the state, and a number of fine bulls had been sent into that county. A bull of the Gore breed was sent into that county. This was the Holderness breed; and when a calf he was given to Governor Gore, by Hon. John Welles. The bull Depton, sent out by Mr. Williams to his brother of Northboro', was used in that county; and then the bull Admiral, presented to the state society by Admiral Coffin, was bought by Mr. Welles, and presented by him to the Worcester society. He was a pure short-horn.

Mr. Cole, of the New England Farmer, said, that he differed from gentlemen who said that we had no native breed of cattle. The descendants of animals that had long been in this country were natives. In Maine, many farmers had carefully bred the native stock, and raised excellent animals; and native cattle could be found in that state equal to any breed, native or foreign, in the country. Some of the finest cows in this state were bred there. Foreign breeds are valuable in making improvements in crossing. Some complain that our finest native cows will not produce their like. The great difficulty is, some are impatient, and do not make a fair trial. It is a principle of breeders that the good qualities of a fine animal descend in the opposite sex. The females resemble the sire, the males the dam. We should look for the properties of a cow, not in her heifers, but in the heifers from her bulls. Whether this be correct or not, it should be tested.

Mr. Brooks, of Princeton, said, that in breeding to any purpose, he would have particular regard to the bull, as he had the greatest influence. For raising milking stock, he would select a bull having the marks of a good milking cow. He thought the introduction of a foreign stock had improved our native cattle. The bull Denton improved them for milk. One cow from him gave milk constantly for fourteen years, having a calf every year.

Mr. Rice, of Boston, gave an account of some superior cows which he once owned, of foreign stock, or a cross of foreign breed. He said, several fine foreign bulls had been sent into Maine, which might be one cause of specimens of fine stock there, which is called native.

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For the New England Farmer.

CARE OF STOCK.

FRIEND COLE: It is presumed that every careful stock owner, or at least every intelligent reader of the New England Farmer, who has the care of stock, knows how to manage cattle in a manner that will cause a profitable return to the owner, while, in the mean time, comfort is imparted to the animal; for my opinion is, that the beasts of the earth are capable of realizing comfortable fare just in proportion to the scale of their instinct, when compared with the keen relish and sensitive enjoyment of him who is lord of the brute. Every one who regularly visits the barn, of course uses the pitchfork to the satisfaction, or at least comfort, of his animals; but I

have good reasons for supposing that the visitor of the stable does not, at all times, with a commendable degree of diligence and regularity, apply the card or curry-comb to the animals.

In this way, a little time, with a moderate amount of labor, is well expended; therefore do not fail to apply the proper implement to the *whole* surface of every animal that needs it, from the noblest occupant of the farmer's stall down to the yearlings, some of which may be affected with a *live* misfortune about the neck. Apply the proper remedies in connection with the card.

If the beasts are not used to the operation, they may not at first stand still; but begin gently, in connection with a word of kindness, which will have a marked effect in subduing creatures that would not otherwise remain under the hand of the owner. I shall be excused even if I go so far as to say, step into the stable before breakfast, or at least before the cattle are untied in the morning, and brush off the spangled frost and straighten the hair; the operation may generate a moderate amount of electricity or heat by the use of the comb or brush, and the stock will thrive the better, and be more profitable. I.

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For the *New England Farmer*.

AN INSECT DESTRUCTIVE TO FRUIT TREES.

MR. EDITOR: The two past years I have been annoyed with an insect which appears to be destructive to fruit trees. Its ravages have been chiefly confined to the plum and English cherry. The attack is made when the tree is in full foliage, and while the fruit is green. The first appearance is that of a sluggish or mucilaginous substance, somewhat resembling a small snail, deposited on the leaf, having very little appearance of life. In a few days it makes its way over the leaf, leaving it perforated and withered; and in a week or two, the whole tree has a dry and withered appearance. I have, as yet, been unsuccessful in finding a remedy.

Yours truly,

JAMES ALLEN.

BANGOR, ME. Jan. 1849.

EDITORIAL REMARKS.

We suppose that the insect referred to is the cherry slug. If so, it is very easily destroyed by the application of wood ashes or powdered lime, as these substances adhere to the slimy surface of the insects, and readily destroy them. These slugs are very destructive, but this remedy is easy and effectual.

A NEW ESCULENT.

A mediate effect of the fatal potato malady has been that of exciting inquiry and discussion on the subject of an accessory, or substitute for the now indispensable tuber. In some quarters, prizes have been offered in furtherance of the object—in this country by the Society of Arts, and on the Continent by the Brussels Academy of Sciences. The bulletin of the latter institution for the present year contains an account of a new root, communicated by one of the members, (M. Morren,) which we consider sufficiently important to deserve further publicity. The plant in question is a tuberous variety of the *Tropaeolea*, known as *Capucines* in France, comprising twenty distinct species, among which the ornamental and pungent Indian cress is familiar to horticulturists. It grows spontaneously in Peru, and is largely cultivated as an article of food, under the

name of *Mayua*, in the province of Popayan, at a height of 10,000 feet above the sea level, as described by Humboldt in 1801.

The *mayua* grows with sometimes as many as fifteen tubers to a root: these are the average size of our potatoes, and are round, kidney-formed, or peg-top shaped, according to kind. Their color is bright yellow, with rays of reddish-purple or scarlet diverging from the eyes, which are deeply set.

With regard to the edible qualities of the *mayua*, M. Morren's experience will perhaps be best given in his own words. After premising that the Peruvians and some of his compatriots had preceded him in the matter of tasting, he observes, "When I rubbed the tubers exteriorly, my olfactory organ became sensible of an agreeable aroma, delicate and tenderly perfumed. There was no earthy smell, as in the potato.

"When cut, a delicious odor exhales, mingled with a certain subacidity by no means repulsive; on the contrary, attractive to the palate.

"Eaten raw, the root produces a rich, smooth, unctuous savor, which lasts but a short time, and is all at once succeeded by a piquant, peppery taste, exciting the tongue somewhat as ginger. This spicy taste afterwards disappears, and leaves in the mouth a pleasing perfume and agreeable coolness.

"From this I was led to conclude that the tubers of the *mayua* should be eaten raw, cut in slices as salad, or with meat. I have never experienced any ill effects from eating it in this way, and my family relish it equally with myself.

"I next had the tubers boiled. My cook remarked that they required more salt than our potatoes; but what struck us was, that all the perfumed and piquant taste had entirely disappeared. A modification had taken place, the study of which I recommend to the attention of chemists; for the root, when cooked, has exactly the smell of a Tonquin bean. I am quite unacquainted with the element which produces this agreeable odor in the cooked *mayua*. Nevertheless the boiled tuber is feculent, rich, unctuous, with the taste of a good blue potato, or that of the Cordilleras yellow; that is to say, it approaches the flavor of hard yolk of eggs.

"I consider, therefore, that, under all the circumstances, the *mayua* may become a culinary plant. The important point is, to persevere, and to vary the cultivation on different soils and in various localities during several years.

"This root is cultivated the same way as the potato. It requires earthing up, and may be trained to stakes or a trellis, or let to run on the ground; I prefer the trellis, as the plant thereby becomes stronger and more luxuriant. It should be set in spring, after the frosts: the tubers form late, and are ripe in October." — *Vermont Union Whig*.

FEEDING AND FATTENING SHEEP.

Perhaps there is no domestic animal that requires more nice and constant attention than the sheep; and no other will more richly pay for generous keeping. Though he may not be more liable to disease, nor require a better quality of food, than neat stock, still that management which will keep cattle in good case will not answer for sheep. His habits and mode of feeding are entirely different. For instance, in the winter season, a cow may be kept tied to the stall twenty-two hours out of the twenty-four, and, if fed three times a day, keeps her flesh and gets sufficient exercise for her health. Serve a sheep in the same manner, and it would probably not live a month. It is natural for sheep to move about and change situation. Turn a flock of hungry sheep into a pasture, and they will run to the end of it before they begin to eat; feed them in troughs, and they will

run over all till they come to the last, when they have it in their power. They are almost continually shifting situation from hill to dale, from one kind of food to another; and it is a fact that sheep will thrive better on two or three different kinds of fodder, than they will confined to one kind that is of a superior quality. — *Prairie Farmer*.

HORN-AIL IN CATTLE.

This is a disease rather prevalent in this part of the country, the actual seat and character of which, I think, is but little understood among our farmers. The horn is not, as is generally supposed, the original seat of the disease, it being merely a continuation of the frontal bones, the sinews of which extend to the very tip of the horn, and in which, with the surrounding membrane, the disease first commences, afterwards extending to the horn. At this time the farmer generally commences his treatment, notwithstanding the disease may have existed several weeks unobserved, the possibility of which I will endeavor to convince him, by relating some of the primary symptoms of this disease — *Horn-Ail*, so called. They consist in impaired appetite, absence of dew upon the muzzle, pulse and breathing accelerated, increased heat of the horns, thirst, and frequent constipation of the bowels. Now, at this stage of the disease, were the farmer or owner to apply the proper remedies, horn-ail would seldom exist. Instead of this being done, little notice is taken of the animal till all the primary symptoms have subsided, and another set show themselves, such as, greater loss of appetite, depression of the spirits, staring coat, wasting of the body, horns cold, discharge from the nose, a dull, spiritless appearance. This morbid change of the parts, having extended to the horn, terminates in suppuration of its softer parts, and consequently the honeycomb-like cells appear empty when bored into with a gimlet — that being the farmer's remedy at this stage of the disease, generally to him the first stage. He follows the operation by pouring into the hole some irritating mixture, which seldom proves of any avail. I would not say this is the case with every one, but it is thus too frequently. Some, at an earlier stage, commence giving a dose of purging medicine, applying an external stimulant between the horns, changing the diet for a more laxative one, and one easy of digestion. By these proceedings, in some instances they restore the animal to health; at other times the disease terminates differently, by extending to the organs of respiration, producing catarrh, bronchitis, or even pneumonia, (inflammation of the lungs,) which, if not promptly and properly treated, terminates in death. The causes which give rise to this disease are generally pretended difficult to discover. Yet, upon reflection and inquiry, they are easily traced out. Perhaps the door or window of the cow-house has been left open, and a cold wind allowed to blow directly upon the animals. Perhaps they have been turned out into the yard during a cold storm, supposing that, *they being animals*, it will not hurt them, while they are just as liable to take cold as man, if exposed to the same vicissitudes of temperature. Again: frequently their diet is not sufficiently nutritious to keep up the necessary degree of animal heat to resist the excessive cold of our winters, for it is at this season when it prevails the most.

For two years past, I have attended the neat stock belonging to the State Agricultural Society, under the care of E. Phinney, Esq., of Lexington, during which time I have never seen a case of horn-ail, its non-existence being attributable to the comfortable manner in which they are treated.

Another cause of this disease is in the fodder with which the cattle are fed, it being full of dust. In breathing, the dust is drawn up the nose, into the

cavities of the head; irritation of the lining membrane is occasioned, and extends till the disease is established in one or all the parts before named.

The treatment I prescribe, when called to animals laboring under this disease, in its primary stages, is to place them in a comfortably warm situation, giving them a clean, dry bed to lie upon, a diet easy of digestion, should they be inclined to eat; a dose of moderately-purging physic, with such medicine, once or twice during the day, as the case may require, and which shall allay fever at the same time, and allow the patient to drink at liberty of cold water. Should I not be called till the disease has assumed a chronic character, I then, after seeing the patient housed comfortably, and giving it a dose of laxative medicine, commence giving one or two doses in the day of cordials, combined with vegetable and in some cases mineral tonics.

There are cases, in some instances, wherein the cure is performed by the operations of nature, and without any aid from medicine. In most cases, however, of this disease, as well as all others, nature can be materially assisted by the timely aid of medicine properly applied. — *Lowell Journal*.

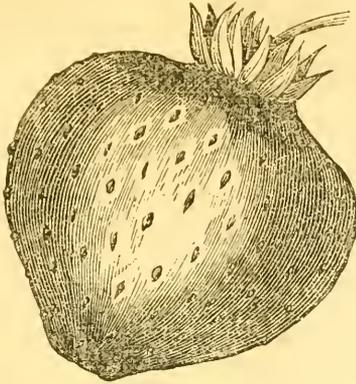
ROOTS FOR STOCK.

Not only the farmer, who unites with his other vocations that of stock-raising, but the mechanic, who keeps but a single cow, should endeavor to supply himself with a sufficiency of roots for winter use. There are several varieties of roots now generally cultivated for this purpose, all of which are, no doubt, possessed of considerable value; yet some are superior to others on account of their greater hardiness, greater yield, or superior richness in the elements of animal food. The carrot, the parsnip, the beet, and several species of the turnip, are cultivated for this purpose, and generally with good success. Indeed, it matters but little whether we raise one or the other, provided we only succeed in obtaining enough; this is the main object to be attended to. If we are so circumstanced as to render the production of a crop of English turnips more easy to accomplish than either of the aforementioned ones, and can secure a sufficiency to insure a liberal and constant supply of the roots to our animals during the winter, we ought to be content and thankful; for notwithstanding the amount of nutritive matter in this root is small, compared with that contained in the ruta baga, yet this deficiency may be easily counterbalanced by giving an increased quantity. In this way, the English turnip is made to equal in value other roots, while it is produced at far less expense. When we have the requisite means, we should plant beets, carrots, potatoes, &c., all of which will afford an agreeable, salutary, and palatable diet for neat stock, and are much cheaper than hay and grain in carrying them through the winter. — *Maine Cultivator*.

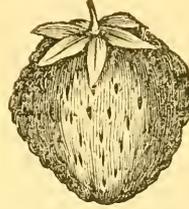
CAMPBOR TO DESTROY LICE ON CATTLE.

Mr. John Macomber, of Wilton, informs us that for more than ten years past he has used gum camphor, dissolved in New England rum, to destroy lice on cattle. It does the work effectually, as we can testify; it may be applied at all times, even in the coldest weather, without injuring the cattle. On the whole, Mr. M. finds it better, safer, more convenient, pleasanter, and cheaper than any other application he has ever used for the purpose.

A year of pleasure passes like a fleeting breeze, but a moment of misfortune seems an age of pain.



Hovey's Seedling, of the largest size.



Early Virginia, of moderate size.

THE STRAWBERRY.

The strawberry is the earliest of all fruits generally cultivated in this part of the country, and it is one of the most delicious and wholesome. It is cooling and refreshing, and highly acceptable, as it is in use in the hot season when there is a general scarcity of fruits. It is very juicy, rather acid, and remarkably tender, which admirably adapts it to general use in hot weather.

This fruit is easily raised. Any good tillage is adapted to its cultivation, but it pays well for high manuring and thorough cultivation. A deep sandy loam, rather moist, yet well drained, that the water may not stand on it in the winter, is the best soil for strawberries. Large crops are raised in this vicinity on light soils, but on such soils a severe drought may greatly reduce the crop.

The production of the strawberry is large. In some rare cases, the crop has amounted to four thousand quarts to the acre. An average crop is probably less than half this amount, or about fifteen hundred quarts to the acre, selling at twenty to twenty-five cents per box. In some cases the average price of large berries is thirty to thirty-seven cents. The production is so large as to render the crop profitable, whether raised for market or for family use.

The Early Virginia strawberry, represented above, is one of the best and most profitable varieties, and for an early kind, it takes the lead in New England. It is hardy, vigorous in growth, an abundant bearer, and the fruit is excellent.

Hovey's Seedling follows the Early Virginia, in quick succession, and it is distinguished for its large size and productiveness, and the quality is very good. It is a pistillate plant, and requires a staminate variety, or a perfect kind, like the Early Virginia, near it, in order to get a good crop and perfect berries.

These two are the principal varieties cultivated in this region. Many more are on trial, some of which are very promising. An account of the Black Prince may be seen on page 83.

The object of this article is to direct more attention to the cultivation of the strawberry, both for market and for home consumption, where the wild strawberry does not abound. One square rod in the garden will generally yield ten quarts. A friend informed me that he had a good supply for his family, of twenty quarts, from a bed twenty by twelve feet. What a delicious luxury at a small expense!

GOLDEN RUSSET AND RED RUSSET.

Mr. Thomas O. Jackson, of Plymouth, has sent us some American Golden Russet apples, and he inquires whether they are the same as the Red Russet. We reply, that the Golden Russet is a small fruit, in use late in winter and early in spring. The flesh is remarkably tender, and it is of the highest character as to quality. A moderate grower, and good bearer. The Red Russet is as large as the Baldwin; in use in spring, the color mostly bright red, with much russet. Flesh firm, but pleasant, and very good. We know but little of this, as it is new; we only had a few before this season, and now they are too hard for use. We find it a great grower, and it is called a good bearer. We think that it is a cross between the Baldwin and Roxbury Russet. We should prefer the Golden Russet for the private garden, as a table fruit; but the Red Russet will probably be the most profitable for the market, the fruit being much larger, keeping rather longer, and the tree a greater grower. As we know but little about it, we would recommend it for trial only.

APPLES FROM NEWBURGH, N. Y.

By the politeness of Charles Downing, Esq., of Newburgh, we received, early in the winter, a box of several varieties of excellent apples; and as some of them were late, we have delayed noticing them until the greater part have come to perfection. Mr. Downing is extensively known as a very intelligent nurseryman and fruit grower.

Jonathan.—This is a beautiful and excellent apple, of medial size, very popular in some parts of New York, and some other sections of the country, but very little cultivated in New England. In use during the winter. We have never seen this in the Boston market.

Domine.—Medial size, very fair and handsome. Not of a high flavor, but very juicy, crisp, mild, and pleasant. Mr. D. says that it is a favorite with farmers in that region, as it is a very great bearer. In use during winter and into spring. We never noticed but one barrel of these in this market, which we purchased, a few years ago, under the name of "Cluster;" and we kept some of them, in good condition, till July.

Winter Sweet Paradise.—Rather large, yellow, very sweet, tender, and excellent. Comparatively new, and not extensively known, but very promising.

Vandevere.—Medial size, roundish, mostly red; flesh remarkably tender, delicate, and of excellent flavor. Mr. D. regards this as one of the very best winter apples, and these specimens would justify this opinion. It seems to us that the Vandevere of the West must be a different fruit, for there it is not considered first rate, but it is popular from its being a sure bearer, while others are more liable to fail from unfavorable seasons. This is occasionally found in our market, from New York.

Swaar.—This is a large apple, very popular in some parts of New York. It is of the highest quality, being of a fine flavor, and very tender and fine in texture. It is singular that Swaars, grown in New England, though large and fair, and on different soils, are light and poor, and often defective at the core. This is the case with all that we have seen. We think a spurious kind may be cultivated here. It is a large apple, and more smooth, and of a paler color, than those from New York.

Newtown Pippin, Green and Yellow.—In some favorable locations in the Middle States, and in the West, under the best of management, this fruit is tolerably fair and productive, and it is of the highest character, and a long keeper. In England, it is the most celebrated American apple. In New England, it is very uncertain, though some fine fruit may be obtained in a long, warm season. Although there is considerable difference in the form and the general external appearance of these two varieties, some cultivators think that they were originally one. This fruit is hardly ripe enough to use. It keeps till July.

Tewksbury Winter Blush.—Very small and beautiful; yellow, with a bright blush. Not of the best flavor, but remarkable for keeping into summer. Not yet in use. This is rather smaller than the Lady Apple.

Ladies' Sweeting.—Large, very beautiful, and of the highest character. If this apple should flourish in different parts of the apple region in our country, it will doubtless be the most popular of all late sweet apples. It is quite large, remarkably fair, of a bright red color; very sweet, tender, rich, and

high flavored. It is a good grower and a good bearer. Its late keeping is also an excellent property. They are now coming into use, and will last till May. We find it to be a fine grower, but it has not been tested in New England.

PEAT ASHES—MARL.

We have from Mr. Calvin Locke, of Ipswich, a sample of peat ashes, of a very fine grit, that bears a strong resemblance to chalk, only of a darker color. Mr. L. informs us that the subsoil in the meadow, from which the peat was taken, is of a greenish color, cuts like butter, and effervesces with vinegar; that it had been used as a manure for grass lands on Captain Holmes's farm, with great success, and its effects were perceptible three years after its application.

This green substance is marl, undoubtedly, as lime is indicated by the effervescence on the application of an acid. It may be equally valuable, for manure, as the green marls of New Jersey, which have been applied to the light soils, so prevalent in that state, and have effected a wonderful improvement.

ACTION OF MANURES.

Too much importance is usually given to the action of manures, as becoming an integrant part of plants. It is true, that a minute portion of some parts of the constituents of manures are taken up by plants, as their destructive analysis will show; but of this small part, its greatest proportion is simply carried mechanically, by capillary attraction, into the ascending tubes and is not chemically combined with the plant, any more than is the water it contains, or than are the burs which sometimes become matted in a cow's tail, a part of the tail.

Still, a part may be, and probably is, combined chemically with the plant, but not to the extent generally supposed. The principal action of manures, is simply to undergo decomposition in soil, and by this decomposition they are resolved into gaseous bodies. These gases rise; and as every cubic inch of solid matter contained in manure will form one to two thousand cubic inches of gases, consequently they must expand. In so doing, the ultimate particles of the soil is disturbed, and thus the spaces between the particles are loosened, and admit the carbonic acid gas; the vegetable retains the principal part of its bulk, which is carbon, and is almost the entire weight of the plant beyond the water.

In farther illustration of these facts, it is well known, that if from a known weight of soil we raise successive crops of grasses for many years, removing half the crops, and ploughing in the other half, that the soil will increase in weight, as well as in power, to produce vegetables, and this, too, without any manure being added.

Suppose a piece of land is capable of producing two tons of clover per acre, and that one ton is removed every year, the other ton returned to the soil, and this process continued for so many years as to have yielded, for removal, fifty tons of clover.

Now where has this immense weight come from? From the soil? No; that is impossible, because you have more soil than when you commenced. Now, as the clover has touched nothing but the soil and the atmosphere, it must have come from the one or the other, and if not from the soil, why, of course, from the atmosphere.—*Working Farmer.*

BARREN SOILS.

This term is often used, and is supposed by many to mean a soil incapable of being rendered fertile. No such soil exists. *Barren*, then, is only applicable when intended to convey the idea of soil which, in its present state, will not repay the cultivator.

The unproductiveness may arise from many causes, but none of them are without remedy. If from a deficiency of some of the earths, let them be added; if from an excess or deficiency of either animal or vegetable matters, the fault is easily corrected; if from stagnant water, either under-drain or subsoil, as may be required; if sand, clay, or chalk be deficient, add them; if either be in excess, add the other two. Peaty soils are generally reclaimed by draining alone; sometimes paring and burning are necessary to induce decomposition of organic matter in excess. The same result can be obtained in most or all cases, by the addition of the salt and lime preparation which we have recommended for composts. When the soils are found to be incompetent to produce any special crops required, the farmer should have them analyzed, and then compare their ingredients with those of such soils as do produce the required crop readily. The difference will point out the means which must naturally be resorted to, for the purpose of restoring their fertility.

AN ANCIENT APPLE.

Colonel Samuel Jacques, of the "Ten Hills Farm," near Boston, has presented to the American Antiquarian Society an apple more than fifty-six years old. It was given him on the 12th of September, 1792, as a birthday token, by a lady, the period of whose entrance into life happened to correspond with his own.

The original size of the apple was about that of a large cranberry; and what is somewhat remarkable, it grew out from a small bud starting out of a stout limb, while the rest of the fruit of the tree (the Summer Hervey) was large, the apples weighing from twelve to fourteen ounces each.

This venerable specimen is as well preserved as an Egyptian mummy. It has as many wrinkles as usually belong to extreme old age, and exhibits the complexion to which every thing mortal is wont to come at last. — *Worcester Spy.*

SALT AND SOOT.

The power of soot as a top-dressing to either wheat or pasture land, is materially increased by the admixture of one fourth of common salt. In the fourth volume, p. 270, of the Royal Agricultural Society's Journal, it is stated that fifty-four bushels of soot and six of salt produced larger crops of Altringham and white Belgian carrots than twenty-three tons of stable manure and twenty-four bushels of bones, at half the cost. It is best to hoe the land, where used as top-dressing for wheat, after the soot is spread, as that prevents the evaporation of the ammonia, which is the most essential part of the manure. To mix it with lime is most injurious, as that alkali causes the rapid dissipation of the ammonia. Mr. Dimmery, of Stinchombe farm, in Gloucestershire, uses nothing but soot as a manure for potato crops, which he grows in drills, using soot at the rate of twenty-five bushels to the acre.

HOW TO CATCH HAWKS.

The following ingenious method for destroying these pests to the farmer is given by S. Webb, Esq.,

of Waldo county, Maine, in a late number of the Belfast Republican: —

"Erect a pole, twelve or fifteen feet high, in a place where there will not be any thing else near for them to light upon, and upon it set a common fox-trap, on which they will light. A strong rat-trap will answer the purpose, by tying it to the pole lengthwise, with the jaws raised above the end, the pole being a little leaning, so that the jaws will not fall together. When one hawk is taken, tie it on the ground near the pole, and its mate will be in the trap in a short time. The season is near for the hawks to reappear, and if farmers do not wish to have their chickens destroyed by them, they will do well to adopt this method of putting a stop to their depredations.

BIRDS.

It is proved that a pair of sparrows, during the time they have their young to feed, destroy, on an average, every week, three thousand three hundred and sixty caterpillars. This calculation is founded upon actual observation. Two parents have been known to carry to their nest forty caterpillars in an hour; and, supposing the sparrows to enter the nest only twelve times during each day, they would cause a consumption of four hundred and eighty caterpillars: this sum gives thirty-three hundred and sixty caterpillars extirpated weekly from a garden. But the utility of the birds is not limited to this circumstance alone, for they likewise feed their young with butterflies and other winged insects, each of which, if not destroyed in this manner, would become the parents of hundreds of caterpillars.

CURE FOR GRUBS IN THE HEAD OF SHEEP.

It was in the latter part of winter one of my flock was taken sick, and became so weak it could not rise without being lifted. I supposed its ailment to be the grub in the head; and knowing something of the virtue of flaxseed oil, I resolved to try an experiment on it. I laid the sheep on its rump, or rather on its back, with its nose a little inclining backwards, and poured in near a tablespoonful of the above oil, part in each nostril. The next morning the sheep was able to get up and eat with the rest of the flock, and speedily recovered. After that, and while I kept sheep, when I discovered any of them snotty-nosed and coughing, (an indication of the grub,) I put a little oil in their noses, as above, and they soon became clean and healthy. I do not remember that I failed in one instance. Some of my neighbors also received benefit by the above process. — *Selected.*

WORK! WORK!

If you would be free, work. When a man stops working, he in effect dies. He starves in the midst of abundance; for what is dyspepsia but the worst sort of starvation? God may have cursed the ground, but he blessed labor. He made man to subdue the earth. Yet he is also the blessed Creator of sleep, of rest, of recess, of mirth, hilarity, and fun. Enjoy superfluity? Yes, but only in one way — helping the needy. Hoarding up a fortune to live in idleness, is not enjoying superfluity, nor rest. It is being miserable, and that no man has a right to be. He who works, and has enough to work with, and is sure of enough to live on while he works, enjoys the conditions of happiness. Idleness is no less a crime in the rich than the poor.

Domestic Department.

PURE AIR FOR BREAD.—Bread undergoes a great change for twenty-four hours after it is baked, and chemists have made estimates that during this time it absorbs nutriment from the atmosphere equal to twenty per cent. of its value. Whether these chemical calculations are correct or not, it is evident that a great change takes place in bread immediately after it is baked, and this change is doubtless effected by absorption.

From these remarks it is evident that as soon as bread is taken from the oven, it should be set in pure air. It should not be placed in a cellar, nor in the passage to the cellar, nor in a closet opening into a room much used by the family, as from fires, and from perspiration and transpiration of persons, the air becomes measurably impure.

EDUCATION OF FARMERS' DAUGHTERS.—In the families of many farmers there are far too many unproductive hands. In the changes, which, since the introduction of extensive manufactories of cotton and woollen among us, have taken place in our habits of domestic labor, some of the internal resources of the farmer have been dried up, and new occasions of expenditure introduced. I cannot better illustrate this matter than by a recurrence to a conversation which I had with one of the most respectable farmers in the country. "Sir," said he to me, "I am a widower, and have only one daughter at home. I have gone to the utmost extent of my limited means for her education. She is a good scholar, and has every where stood high in her classes, and acquitted herself to the satisfaction of her instructors. She is expert in all the common branches of education. She reads Latin and French; she understands mineralogy and botany; and I can show you with pleasure some of her fine needlework, embroidery, and drawings. In the loss of her mother she is my whole dependence; but instead of waiting upon me, I am obliged to hire a servant to wait upon her. I want her to take charge of my dairy, but she cannot think of milking; and as her mother was anxious that her child should be saved from all hardship,—for she used to say the poor girl would have enough of that by and by,—she never allowed her to share in her labor; and therefore she knows no more of the care of the dairy, or indeed of housekeeping, than any city milliner; so that, in fact, I have sold all my cows but one. This cow supplies us with what milk we want, but I buy my butter and cheese. I told her a few days since that my stockings were worn out, and that I had a good deal of wool in the chamber, which I wished she would card and spin. Her reply was, in a tone of unaffected surprise, "Why, father, no young lady does that; and besides, it is so much easier to send it to the mill, and have it carded there." "Well," I continued, "you will knit the stockings if I get the wool spun?" "Why, no, father; mother never taught me how to knit, because she said it would interfere with my lessons; and then, if I knew how, it would take a great deal of time, and be much cheaper to buy the stockings at the store."

This incident illustrates perfectly the condition of many a farmer's family, and exhibits a serious drawback upon his property, and a great impediment to his success. The false notions which prevail among us in regard to labor, create a distaste for it; and the fact that, if the time required to be employed in many articles of household manufacture be reckoned

at its ordinary value, the cost of making many articles of clothing would exceed that for which they could be purchased at the store, is deemed a sufficient reason for abandoning their production at home. In many cases, however, the time is turned to no account, but absolutely squandered. But the clothing, if not made, must be bought; and they who might produce it must be sustained at an equal expense, whether they work or are idle. — *Report of the American Board of Education.*

Boys' Department.

BOYS SHOULD BE MECHANICS.—Boys should have tools for their own use, and they should be taught to use them, and keep them in order. In this way every boy may learn the use of common tools; and then, in case he is a farmer, he can attend to various mechanical affairs, and not have to spend a few hours' time to procure a mechanic to do an hour's work, as is often the case with the farmer, especially in sections sparsely settled.

Some boys know so little about the use of tools, that their fathers pay a considerable bill annually to furnish them with playthings, when they are big enough to make all carriages, &c., that they need for amusement, if they were furnished with tools, and had but very little instruction.

When a boy is big enough to haul a sled up hill and slide down, he should be capable of making his own sled, and not depend on another. Every boy can do far more than he or his parents are aware of, if he is placed under favorable circumstances for trying, and for developing his mechanical powers.

A farmer once remarked to us that he was in want of a drag at a busy season, and after spending more time in trying to get some one to make it, than would have been required to construct it, he was under the necessity of attempting the job himself; and he succeeded well. Had that farmer been trained to the use of tools in his boyhood, he would have known his ability, and would not have wasted his time in the vain endeavor to procure another to do what he could do himself; and that was doubtless only one among many instances of his depending on others for what he might have accomplished himself at much less expense.

SYMPATHY.—It is a pure stream that swells the tide of sympathy—it is an excellent heart that interests itself in the feelings of others—it is a heaven-like disposition that engages the affections, and extorts the sympathetic tear for the misfortunes of a friend. Mankind are ever subject to ills, infirmities, and disappointments. Every breast, at some particular period, experiences sorrow and distress. Pains and perplexities are long-lived plagues of human existence; but sympathy is the balm that heals these wounds. If a person, who has lost a precious friend, can find another who will feelingly participate in his misfortune, he is well nigh compensated for his loss. And delightful is the task, to a feeling heart, of softening the painful pillow of disease, of amusing the unfortunate, and alleviating the tortures of the afflicted.

Health.

HEALTH OF CHILDREN. — Rising early is a habit of high importance to fix in children; and in forming it, there is far greater facility than in other cases. There is a natural propensity in children generally to early rising, which needs only to be gratified and encouraged. They usually retire to bed some hours before their parents, and at daylight, or at least sunrise, are generally awake, and anxious to rise. Many of them are actually bred up with difficulty to the habit of taking morning naps, which, when once formed, generally prevail through life. Let his father deny himself so far as to retire early, and become an early riser also. His health, enjoyment, and usefulness, he may depend upon it, will be perceptibly benefited. And this may be connected with another preventive of disease — active employment. The morning is the season for activity; the frame, invigorated by repose, is prepared for exertion, and motion gives pleasure. The pure atmosphere, so much more bracing than at other hours, so much sweeter and more exhilarating than the air of a confined chamber, has been prepared to be breathed; and, like all nature's medicines, it is superior to any which science can produce. Early rising and early exercise might more properly be called food than medicine, as they are designed for daily use, and to protect us from disease rather than to remove it. Every thing, except mere sloth, invites us, nay, requires of us, to train up our children to use them. The morning is the most favorable season for exercising the frame, as well as for making useful impressions on the mind and heart; and whoever tries to conduct the education of his child independently of this practice, will lose some of the most favorable opportunities. — *Dwight's Father's Book.*

RECIPE FOR WHITE SWELLINGS AND FELONS. — To cure white swellings and felons, a correspondent of the South-Western Farmer says, "take copperas, blue stone, alum, table salt, and flowers of sulphur, of each the size of a pea, put them into a four-ounce phial, and fill it with strong apple vinegar, and in twenty-four hours or less it is fit for use. If to be applied to a bone felon on the finger, the skin is to be pared with the razor, the phial being well shaken; wet lint, and apply it three times a day. It will instantly relieve pain, take out the fever, and effect a cure. If a sore leg, the sore must be washed twice a day with Castile soap, — then apply the wet lint." Most bruises and diseases of the flesh may be benefited, and generally cured, it is said, by this application.

Mechanics' Department, Arts, &c.

TIME FOR CUTTING TIMBER. — There are various opinions on this subject; some persons preferring one season, and others another. But nearly all are agreed in the opinion that the spring is an unfavorable season, as the tree is then full of sap. Most mechanics, who attend to wood work, prefer timber that is cut in winter, or late in fall, after the season of vegetation, as it then contains less sap than in spring. If the opinion that it contains less sap in winter than in spring is not correct, it is evident that the sap contained in the timber in winter has a less tendency to decay than that of spring.

Farmers who have cut poles for fencing in spring and fall, and let the bark remain on, have generally observed that those cut in fall last far longer than those cut in spring. Some mechanics, who have cut their timber at different seasons, are decidedly in favor of cutting it in June, when the tree is in its greatest vigor, as it is very durable and heavy. At this period it is supposed that the sap or juices of the tree are thick, or of a mucilaginous substance, and that they become fixed in the wood, and fill up the pores, and add to its weight. June is a favorable time for stripping the bark from trees, and this operation is very necessary when timber is cut in June.

We hope that more experiments will be made on this subject, particularly to show which is the best period for cutting timber — in June, when vegetation is in full vigor; or August and September, when it is less active; or late in fall or early in winter, when the tree is in a dormant state.

EASY METHOD OF BREAKING GLASS IN ANY REQUIRED DIRECTION. — Dip a piece of worsted thread in spirits of turpentine, wrap it round the glass in the direction that you require it to be broken, and then set fire to the thread; or apply a red-hot iron round the glass, and if it does not immediately crack, throw cold water on it while the wire remains hot. Glass that is broken by this means may often be fashioned and rendered useful for a variety of purposes. — *English Paper.*

TO PRESERVE SPECIMENS IN NATURAL HISTORY. — To preserve the skins of animals for exhibition, arsenical soap has been found to be the most perfect guard against vermin, and is prepared in the following manner, viz.: camphor, five ounces; arsenic in powder, two pounds; white soap, two pounds; salt of tartar, twelve ounces; chalk in powder, four ounces. Rub this thoroughly over the inner surface, and afterward stuff the animal for the case.

WATER IN THE ATMOSPHERE.

The watery vapor in the atmosphere exerts an agency in promoting the growth of vegetables, of which few are aware. The effect produced by its descent to the earth, in the form of rain, is obvious to all. The agency which it otherwise exerts, though less marked and obvious, is, perhaps, less important.

It is a well-established fact, that the earth absorbs water from the atmosphere, and that in proportion to its dryness. On the other hand, it is a fact equally well established, that the drier the surface of the earth is, the more abundant is the watery vapor in the atmosphere. This is rather a matter of course, as the water evaporates from the earth into the atmosphere. In a season of great drought, then, the atmosphere is charged with this vapor in a high degree, just at the time when its influence is most needed.

We see the reason, then, why loose, porous soils stand a drought better than close, compact soils. We see the reason also why stirring the earth, in a drought, is so vastly advantageous. There are those who are in the habit of stirring the earth, in a drought, among their crops by ploughing and hoeing, when not a weed is to be seen, on account of its highly beneficial effect.

That the atmosphere pervades the surface of the earth, is a fact too obvious almost to need proof. Its

immense weight, or, in other words, the force with which all things are drawn towards the centre of the earth, by the power of gravitation, is evidence enough of the fact.

It is also an interesting fact, that under the expanding influence of the heat of the day, the atmosphere is inhaled into the earth more abundantly, while, under the contracting influence of the cold of the night, it is emitted from the earth, so that there is a sort of respiration going on in the soil continually, a breathing in of the atmosphere during the day, and a breathing it out during the night.

The watery vapor which is inhaled by the soil, of course, holds in solution more or less of fertilizing matters, as ammonia, carbonic acid, &c., which are thus, to some extent, supplied to the soil. — *Michigan Farmer.*

SIGNS OF A POOR FARMER.

He grazes his mowing land late in the spring. Some of his cows are much past their prime. He neglects to keep the dung and ground from the sills of his building. He sows and plants his land till it is exhausted, before he thinks of manuring. He keeps too much stock, and many of them are unruly. He has a place for nothing, and nothing in its place. If he wants a chisel or a hammer, he cannot find it. He seldom does any thing in stormy weather, or in an evening. You will often, perhaps, hear of his being in the bar-room, talking of hard times. Although he has been on a piece of land twenty years, ask him for grafted apples, and he will tell you he could not raise them, for he never had any luck. His indolence and carelessness subject him to many accidents. He loses cider for want of a hoop. His plough breaks in his hurry to get in his seed in season, because it was not housed; and in harvest, when he is at work on a distant part of his farm, the hogs break into his garden, for want of a small repair in his fence. He always feels in a hurry, yet in his busiest day he will stop and talk till he has wearied your patience. He is seldom neat in his person, and generally late at public worship. His children are late at school, and their books are torn and dirty. He has no enterprise, and is sure to have no money; or, if he must have it, makes great sacrifices to get it; and as he is slack in his payments, and buys altogether on credit, he purchases every thing at a dear rate. You will see the smoke come out of his chimney long after daylight in winter. His horse stable is not daily cleansed, nor his horse curried. Boards, shingles, and clapboards are to be seen off his buildings, month after month, without being replaced, and his windows are full of rags. He feeds his hogs and horses with whole grain. If the lambs die, or the wool comes off his sheep, he does not think it is for want of care or food. He is generally a great borrower, and seldom returns the thing borrowed. He is a poor husband, a poor father, a poor neighbor, a poor citizen, and a poor Christian. — *Baltimore Farmer.*

VALUE OF HUMAN EXCREMENT.

Boussingault says that the excrements of a man for one year contain about twenty pounds of nitrogen, a sufficient quantity for the growth of nine hundred pounds — fifteen bushels — of wheat, rye or oats, or for one thousand pounds of barley. And as they can be disinfected and rendered pleasant to handle by admixture with *peat ashes*, all farmers who have peat upon their estates should see that the valuable fertilizer at the head of this paragraph be not wasted, but that it be treated so as to be rendered tributary to the improvement of his land.

If the *peat* in the process of being burnt into ashes be so burnt as to *prevent* the fire from bursting out, a large proportion of the mass will be *carbon*, which will act as a fixer of the volatile part of the nitrogen of the excrement, and, by arresting loss by evaporation, give the property of lastingness to it as a manure, thereby enhancing its value. — *American Farmer.*

WHEAT GROWING IN MAINE.

MR. EDITOR: I will now consider one of the obstacles, which some regard insurmountable, to growing wheat in our state, viz., the *rust*. I have not much experience to relate in raising wheat, though I got good wheat for ten or a dozen consecutive years, and never failed of a crop from weevil or rust. I was moderate in my expectations as to amount of crop, and perhaps I should say that three fourths of an acre, upon which I *experimented*, were destroyed one year by the rust, and two acres another year were injured by the weevil, from having departed from my *usual time* of sowing; but both years I got good wheat from other lands. Rust, I think, is caused by the bursting of the vessels of the stalk, from an increase and accelerated action of the sap or vegetative juices during warm and moist weather, when the plant is putting forth its greatest effort to supply the filling kernel. Now, it is apparent that whatever tends to harden the stalk, which is tender from a rapid growth, and prepare it to resist the increased quantity and accelerated action of the sap at the period mentioned, or whatever tends to make more gradual the supply and the increased action, will be likely to effect the object. This may be done by avoiding the use of stimulating manures, such as animal manure from the barn-yard, using vegetable manure and fresh lands, such as greensward, instead of land which has been cultivated and manured with barn-yard manure. On unmanured lands, or those dressed with vegetable manure, the plant will be of slow growth, stock hardy, and the warm and moist weather will not stimulate it to rapid and unhealthy growth. Rich lands are not required for wheat. Land which will produce good oats will grow good wheat. Undoubtedly dressing of the right kind will increase the crop, but even of the right kind, if heavily dressed, will induce rust by causing a rapid growth of the plant; consequently a tender stalk and a particular state of the atmosphere at a certain stage of its growth, will cause it to rust. We should sow on good oat land, moderating our desire of a large crop, and increase the supply by more extensive sowing. I raised from ten to twenty bushels of wheat on greensward, without manure, using a bushel or two of plaster to the acre. Usually I turned under the stubble, and sowed with wheat a second time, and generally got the most abundant yield from stubble ground. One of my best crops was on land where, before ploughing, I did not cut more than five hundred weight of hay to the acre. Plough deep, and if the land is not rich, a good, though not an abundant crop will result. Manure lands, and if a cold, favorable season, a large crop may be expected; if warm and moist, the crop is pretty sure to be lost. On fresh, unmanured lands, except with such manure as the sods will make, you are sure of a crop, be it cold or warm, which will pay the expense of cultivation, always premising you sow sufficiently late to avoid the weevil. — *Maine Farmer.*

THE EUROPEAN MOUNTAIN ASH.

The brilliant appearance of the European Mountain Ash, (*sorbus aucuparia*,) when in autumn it is densely clad with its rich crimson fruit, is a circumstance sufficient to give it strong claims to the care of the

arboriculturist, independently of the beauty of its foliage. But a tree, which, from this latter property, has long been a favorite with us, and which, though it is common in Europe, we regret to say, is yet but half so well known as it should be, is the Silver-loaved Abele, (*Populus Alba*.) Its growth is very rapid, and it is, therefore, well adapted for planting where time is an object of consideration. The flowers are insignificant, but its leaves are highly interesting. The under side of each of these is rendered perfectly white by a dense cottony pubescence, and in a gentle breeze, from their being supported on slender petioles, they are in constant motion. At a moderate distance, to a spectator standing on the windward side, they give it frequently the appearance of being covered with a profusion of white flowers. It has a beautiful effect from the house when seen at some distance in the foreground of a handsome group of trees of a darker green. Added to this, it holds its foliage unscathed by the frost, until the very latest period in autumn. — *Prairie Farmer*.

METHOD.

A man has twenty or thirty letters and packets to carry to their several destinations; but instead of arranging them beforehand, and putting all addressed to the same neighborhood in a parcel, he crams the whole into a promiscuous bag. He delivers one letter in one place, proceeds to a remote point with a second, retraces his steps before he can deliver a third, returns to repair an omission, and then performs a transit that might have been saved altogether by a little forecast. Thus it requires two days to perform the business of one. The man who has thoroughly mastered the lesson, "A place for every thing, and every thing in its place," will save a world of time. He loses no leisure seeking for the unanswered letter or the lost receipt; he does not need to travel the same road twice, and hence it is that some of the busiest men have the least of a busy look. Instead of slamming doors, and knocking over children in their headlong hurry, they move about deliberately and carefully, without any expression of haste, anxiety, and tumult; for they have made their calculations, and know that they have ample time to fulfil every duty and every engagement. Those who live without a plan, never have any leisure; for their work is never done — never can be done properly, because the end and the right way to it have not been discerned and pursued without deviations from the beginning.

PATENT OFFICE.

The Patent Office was organized in 1790, and from that time up to the commencement of the present year, 1849, the number of patents issued was about sixteen thousand two hundred. It is an interesting moral deduction, to be able to draw from this statement the fact, that useful invention has kept pace with physical want. Thus the largest class of inventions have been for agricultural improvement; the second, for articles of clothing, or the textile fabrics, and the economics and comforts of imparting warmth to the body.

Destructive inventions have come few and far between, and the whole number has not exceeded two hundred and fifty of the sixteen thousand and upwards which have been granted by the Patent Office. A fact like this speaks well for the triumphs of peace, and of the moral turn given to the inventive genius of the country. Indeed, there is no department of the public service more suggestive of interesting fact than that of the Patent Office.

New York has the honor of receiving almost one

third of all the patents granted, and New York city almost as many as the entire slave states. The great bulk of the whole come from the free states — a fact which will suggest others of interest without the necessity of comment. — *New York Express*.

BEAUTIES OF TREES.

What can be more beautiful than the trees? — their lofty trunks, august in their simplicity, asserting, to the most inexperienced eye, their infinite superiority over the imitative pillars of man's pride — their graceful play of wide-spreading branches, and all the delicate and glorious machinery of buds, leaves, flowers, and fruit, that, with more than magical effort, burst from the naked and rigid twigs, with all the rich, and heaven-breathing, delectable odors, pure and animating essences, pouring out spices and medicinals, under brilliant and unimaginably varied colors, and making music, from the softest and most melancholy undertones to the full organ peal of the tempest! We wonder not that trees have been the admiration of men in all periods and nations of the world. What is the richest country without trees? What barren and monotonous spot can they not convert into paradise? Xerxes, in the midst of his most ambitious enterprise, stopped his vast army to contemplate the beauty of a tree. Cicero, from the throng, and exertion, and anxiety of the forum, was accustomed, Pliny tells us, to steal forth to a grove of plane-trees to refresh and invigorate his spirits. In the Scaptan grove, the same author adds, Thucydides was supposed to have composed his noble histories. The Greek and Roman classics, indeed, abound with expressions of admiration; but above all, as the Bible surpasses, in the splendor and majesty of its poetry, all books in the world, so is its sylvan aborescent imagery the most bold and beautiful. Beneath some spreading tree is the ancient patriarch revealed to us, sitting in contemplation, or receiving the visit of angels; and what a calm and dignified picture of primeval life is presented to our imagination at the mention of Deborah, the wife of Lapidoth, judging the twelve tribes of Israel, between Ramah and Bethel, in Mount Ephraim, beneath the palm-tree of Deborah! The oak of Bashan and the cedar of Lebanon are but other and better names for glory and power. The vine, the olive, and the fig-tree are imperishable emblems of peace, plenty, and festivity. David in his psalms, Solomon in his songs and proverbs, the prophets in the sublime outpourings of their awful inspiration, and Christ in his parables, — those most beautiful and perfect of all allegories, — luxuriate in signs and similes drawn from the fair trees of the East.

SULPHUR AND CHARCOAL FOR SWINE.

Let your hogs, at this season, have a plentiful supply of these articles. The former may be administered to them, at proper intervals, in their food; the latter, for convenience sake, may be deposited weekly in their sties. Boxes of the proper size, permanently secured, should be provided for its reception, and kept well replenished with the article, at all times. Salt, also, should be kept by them, or it may be administered as a seasoning to their food. The withholding of this article is, in many cases, attended with fatal results, especially when the animals are kept principally on green and fermentable food. Turn a half pint of salt into a hog's trough, and if his diet has been fresh and unseasoned for some time previous, he will devour it ravenously, and at once. — *Maine Cultivator*.

VERMONT FARMING.

We copy from the National Eagle the following account of successful farming :—

At the annual meeting of the Windsor County Vermont Agricultural Society, held at Woodstock on the 10th January last, premiums were awarded for the following crops of corn, raised the past season, viz. : one acre in Pomfret, one hundred and twelve bushels ; one in Springfield, one hundred and ten and a half bushels ; one in Hartland, one hundred and eleven and three fourths bushels ; one in Woodstock, ninety-nine and seven eighths bushels ; and three fields of corn, of four acres each, in Springfield, first one hundred and four bushels to the acre, the two others ninety bushels each to the acre.

The society's premiums were also awarded for the three best managed and most productive farms of the county : First, to J. W. Colburn, of Springfield ; second, to James Weston, of Weathersfield ; third, to Jonathan Chase, of Springfield. The farm of Mr. Colburn consists of thirty-five acres, only, of mowing and plough land, the remainder being pasture and wood land. The production of these thirty-five acres, the past season, was fifty tons of hay, ten hundred and forty bushels of grain, and twenty-four bushels of potatoes. The yield of hay was all at one cutting ; none of the second crop was mowed.

A manifest improvement in all the industrial pursuits never fails to be the result of a well-regulated and well-managed Agricultural Society.

BERKSHIRE HOGS.

I have occasionally seen articles in your paper decrying the Berkshire hogs, principally on account of their want of size. To such people you may say, that I have a barrow three years old, a full-blood Berkshire, which will now weigh nearly one thousand pounds, live weight. He was weighed on the 3d of October, and then brought down eight hundred and eighty ; since which he has improved rapidly, and will doubtless reach the above weight. I have had this breed for seven years *pure*,—descended from hogs brought from Albany and Buffalo, and a boar imported by Mr. Fahnestock, of Pittsburgh, Pennsylvania, from England, (the latter a very large animal.) The stock have all been large and very profitable, weighing, at seven to ten months old, from two hundred and fifty to three hundred pounds. Several individuals have weighed over four hundred, and the sire of this present one reached seven hundred and fifty. This is, however, much the largest I have yet raised.

I regret, exceedingly, that the breed is so unfashionable here, that I shall be obliged to look for a cross from other stock. — *Ohio Cultivator*.

SUBSOIL PLOUGHING.

M. B. BATEHAM : We have tried several of the experiments recommended in the columns of the *Ohio Cultivator*, and they have all proved real plans of improvement. We tried *subsoiling* last spring, on part of an old field, for corn. The part that was subsoiled gave a fine growth and kept the stalk and blade of corn green and healthy during the dry weather, while the ear and husk ripened perfectly. The corn was cut off about the middle of September, and put in shock, where it stood till the first of November, when it was husked ; the fodder, at the time of husking, being perfectly cured, and still of a green color and sweet smell. The kind of corn was not a late variety. That on the part not subsoiled became dry before cutting time, and the corn was not so heavy.

We intend planting fruit trees in the field, and so thought we would try it on a crop or two of grain before setting out the trees.

Our plough is designed to be worked by one yoke of oxen, or two horses. It consists of two strong iron colters fastened to a beam of wood, one on each side, so as to run true. It worked tolerably well, and cost five dollars. — *Ohio Cultivator*.

GENTLE WORDS.

BY C. D. STEWART.

A young rose in the summer time
Is beautiful to me,
And glorious the many stars
That glimmer on the sea ;
But gentle words, and loving hearts,
And hands to clasp my own,
Are better than the brightest flowers,
Or stars that ever shone !

The sun may warm the grass to life,
The dew the drooping flower,
And eyes grow bright, and watch the light
Of autumn's opening hour ;
But words that breathe of tenderness,
And smiles we know are true,
Are warmer than the summer time,
And brighter than the dew.

It is not much the world can give,
With all its *subtle art*,
And gold or gems are not the things
To satisfy the heart ;
But, O, if those who cluster round
The altar and the hearth
Have gentle words and loving smiles,
How beautiful is earth !

THE OLIO.

How beautiful are the smiles of innocence ! how endearing the sympathies of love ! how sweet the solace of friendship ! how lovely the tears of affection ! These, combined, are all characteristic of *Woman*. They are the true poetry of humanity—rich pearls clustering around the altar of domestic felicity.

Dr. Franklin, in speaking of education, says, "If a man empties his purse into his head, no one can take it from him."

Truth is a hardy plant, and when once firmly rooted, it covers the ground so that error can scarce find root.

The more business a man has to do, the more he can accomplish.

NONE OF OUR RELATIONS. — "Mother, who is this *Aunt Arctic*, that they have found down south?" "I don't know—some old maid—none of our relations, that's certain."

TERMS.—THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state ; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, MARCH 17, 1849.

NO. 7.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

GRAFTING.

This operation is of great importance to the fruit-grower, as he can readily change a worthless tree to a variety of the highest character. Many cases can be named in which a great profit has resulted by changes under this valuable process. A person unacquainted with grafting, on examining into the vast utility attending it, is struck with admiration at an operation so wonderful, and yet so simple, and of easy application.

Scions for grafting should be cut before the buds begin to swell, as they will not only keep longer, but they will succeed better, than those cut later. When cut in fall, or early winter, they will keep in good condition later, than those cut in March. This shows the importance of cutting before vegetation commences. If scions are cut after the buds begin to swell, it is better to set them immediately, as they will be checked by delay, which has an unfavorable effect.

To preserve scions, prepare a tight chest or box, moisten the inside, and place in the bottom either moist saw-dust, moss, loam, or sand, or a moist cloth, or mat, to hold moisture, and keep the scions cool. Lay in the scions—the more the better, as they preserve each other by their freshness or moisture. Cover them with a moist cloth or mat, and renew the moisture occasionally, as warm weather comes on. Place the box in a cool part of the cellar; if in a damp, dark part, the better. It is much better to surround the scions with moisture than to apply water directly to them. Some persons destroy scions by too much care in keeping them wet. When set on quite moist, or rather wet earth, they absorb moisture to their injury.

Scions may be set, in this climate, from the latter part of March to the last of June. Those set in June will make a smaller growth. April and May are very favorable months for this operation, and the greater part of grafting is done in April, or the latter part of April and early in May. Stone fruit should be grafted rather early, as the scions do not keep so well as other kinds, and the scions will not take so well after vegetation commences and the bark peels.

Grafting composition is now generally used instead

of clay, as was formerly the practice. This composition is made with one part of beef tallow, two parts of beeswax, and four parts of rosin, melted together, and then turned into cold water, and pulled and worked thoroughly, like shoemakers' wax. The articles should be pure and of the best quality.

Sometimes mutton tallow or lard is mixed with beef tallow, meal with beeswax, or the wax may be dirty and poor; and the greater part of rosin sold in the interior is dark colored and inferior. Good rosin is of a light color, and almost transparent; and when the very best is used, the composition will bear five parts. Grafting composition is generally for sale at agricultural stores, and some may find it more convenient to purchase it than to make it.

NOTICES OF PUBLICATIONS.

PROCEEDINGS OF THE NATIONAL CONVENTION OF FRUIT GROWERS.—We are indebted to Hon. Marshall P. Wilder for this work, which is a pamphlet of fifty-two pages, containing the doings of a large convention of fruit-growers, held in the city of New York, in October last, under the auspices of the American Institute. The object was to compare specimens of fruits, and opinions, discuss the merits of different varieties, and elicit the best information from various sections of the country. Mr. Wilder was called to preside over the deliberations of the convention, which are valuable and instructive.

HOVEY'S MAGAZINE OF HORTICULTURE FOR MARCH, is filled with a variety of very interesting matter.

ILLUSTRATED NATURAL HISTORY, by Dr. A. B. Strong: Green and Spencer, New York. This is a monthly work, each number containing thirty-two pages, and four beautiful and spirited engravings of various animals, with scientific and popular descriptions. Price, one dollar per year. It is a work of great interest and merit, and remarkably cheap.

AMERICAN FLORA, by the same editor and publishers as the above, monthly. Each number contains four beautiful engravings of plants and flowers, and sixteen pages of letter press, giving a scientific description of plants, their medical properties, uses, propa-

gation, &c. Price, three dollars per year. It ranks high, both as a work of ornament and utility.

Will the publishers send us Nos. 1 and 3 of the History, and 2 and 3 of the Flora?

ADDRESS OF R. FLETCHER, Esq., before the Windsor (Vermont) Agricultural Society, October 5, 1848; — a valuable extract from which is on this page.

A NEW SYSTEM OF VEGETABLE PHYSIOLOGY, designed to account satisfactorily for the Phenomena which take place in the Vegetable Kingdom, and to show the influence of Light, Heat, and Electricity on Vegetation, by Daniel Vaughn, Cincinnati. With much interest and pleasure we have been examining the novel views of the able and intelligent author, but are not yet prepared to give an opinion on those abstruse and difficult subjects on which scientific doctors disagree. We are pleased to learn that Mr. Vaughn will pursue the subject.

IMPORTANCE OF AGRICULTURE.

We copy the following remarks on the importance of agriculture, and its happy influence on those who pursue it, from the Address of R. Fletcher, Esq., before the Windsor (Vt.) Agricultural Society. This prolific subject will soon be in the ascendancy, as it was in the days of Adam.

Permit me to remind you of a well-known truth — the importance of the art of agriculture. Without it, man is a barbarian; a roaming savage, clothed in the skins of beasts, deriving a scanty subsistence from the spontaneous fruits of nature. We are indebted to this art for food and raiment, for the necessaries, the comforts, and the luxuries of life. It may then be termed the most essential of all the arts, the basis of all others, the foundation and support of society. Agriculture is important in a political point of view; it is the best foundation of national greatness and power. The love of country, the fire of patriotism, burns in no bosoms more intensely than in those who own and till the soil. The farmer identifies his possessions with his country, for which he has the strongest attachment, and in whose defence the strongest arm. It is important also in a moral point of view. No situation in life is so favorable to habits of virtue, and sentiments of devotion, as a residence in the country, and rural occupations. He who cultivates the earth is removed from a variety of temptations to which those in other pursuits are exposed. His habits, the calm and peaceful character of his labors, are all so many guardians of his virtue. The changes which the face of nature is constantly exhibiting under his eye, are adapted to promote his virtues: the fall of the leaf in Autumn, the opening beauties of Spring, the rich magnificence of Summer, and the desolate dreariness of Winter, — these are calculated to produce good impressions, and exert a salutary influence. The man who can witness them without feeling his heart glow with sentiments of love, reverence, and gratitude towards Him that made him, must be perfectly insensible. Will any deem these remarks inappropriate? I should feel myself wanting in faithfulness to the occasion if I should omit, in speaking of the merits of agriculture, a view of the subject so grateful and interesting. If, then, agriculture is actually so important, it behoves every class in community to aid in its improvement, and to take those measures best calculated to advance the art, and to stimulate the cultivators of the soil to excel in every branch of husbandry.

THE QUEEN BEE AT HOME.

The community of bees is an example of pure monarchy, unrestrained by any checks or power, yet never deviating into despotism on the one hand, or anarchy on the other. Some years ago, while our gracious queen was making a royal progress through her northern dominions, we witnessed a no less interesting sight of the progress of a queen-bee, in the glass hive of an ingenious friend and lover of nature at his country retreat. The hive was of that construction which opened from behind, and showed the whole economy within. In a few minutes the queen made her appearance from the lower part of the hive. Her elongated body and tapering abdomen at once distinguished her. She moved along slowly, now and then stopping to deposit an egg in one of the empty combs; and it was most interesting to perceive how she was constantly accompanied by nearly a dozen of bees, that formed a circle around her, with their heads invariably turned towards her. The guard was relieved at frequent intervals, so that, as she walked forward, a new group immediately took the place of the old, and these, having returned again, resumed the labor in which they had been previously engaged. Her appearance always seemed to give pleasure, which was indicated by a quivering movement of the wings. The laborers, in whatever way occupied, immediately forsook their work, and came to pay homage to their queen, by forming a guard around her person. Every other part of the hive meanwhile presented a busy scene. Many bees were seen moving their bodies with a tremulous motion, by which thin and minute films of wax were shaken from their scaly sides. Others were ready to take up this wax, and knead it into matter proper for constructing cells. Frequent arrivals of bees from the field brought pollen on their thighs for the young grubs, and honey, which they deposited in the cells. All was activity, order, and peaceful industry. None were idle but the drones, who seemed to stroll about like gentlemen. — *British Quarterly Review.*

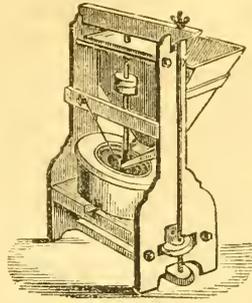
MELON CULTURE.

Hovey, in his Magazine of Horticulture for December, speaking of a visit to the garden of H. N. Langworthy, Esq., on Genesee River, near Rochester, says:

We have stated that Mr. Langworthy gives great attention to the culture of the melon. The kinds he cultivates are principally the Imperial and the Black Spanish, but the greatest quantity of the former, which, though so late a variety, that, in the latitude of Boston, it will not come to perfection in the ordinary modes of culture, by Mr. Langworthy's plan, ripens an immense crop. His mode is to start the plants in a hotbed — the same as for cucumbers: the plants are removed to the hills where they are to grow, as soon as the weather is favorable, but they are not immediately exposed to the weather: boxes, covered with a coarse gauze or millinet, about two feet square, are placed over each hill, and as the plants become inured to the open air, the boxes are removed, and the plants continue to flourish, soon covering the ground. Melons of the Imperial variety are produced, weighing about thirty pounds each. This is a profitable crop as managed by Mr. Langworthy; and it is almost unnecessary to add, that no crop, either of melons, cucumbers, or squashes, can be grown without a great deal of care, especially in attending to the destruction of insects, &c.

WIRE WORMS.

The Albany Cultivator states that a farmer near Albany has preserved his corn from wire worms the present season by rolling the seed in sulphur.



NICHOLS & MARSH'S PATENT PORTABLE GRIST MILL.

Among the many new inventions of the day, we would call the attention of our readers to the mill represented above. In many sections of the country, great inconvenience is often experienced, by farmers and others, for want of mills for grinding grain for various purposes. As this mill is portable, it occupies but little room, and if water power cannot be had, steam or horse power may be used.

In some places, the natural advantages for grist mills are not improved in season to accommodate early settlers; in such cases, this may be used with great economy, as it costs far less than a common grist mill with the various expenses that usually attend a preparation for using water power.

The patentees of the above mill remark as follows:—

“There is one best way to do every thing. With great confidence we recommend this article to the notice of practical men who are engaged in or are about to establish the meal business, or who wish to erect a mill at a comparatively small expense, for occasional use. Out of the numerous improvements that have appeared in the last twenty years, there are none, in our view, either for simplicity, efficiency, durability, or economy, that equal it, and, as far as our experience has gone, we are led to believe it the best portable mill for grinding grain, corn, salt, plaster, and spices, extant. It is composed of the best French burr stones, which hitherto we think entitled to the preference of all other material for that use. They are substantially built, easily kept in order, and can be attached to the requisite power with great facility.”

Three sizes are manufactured, of sixteen, twenty-four, and thirty inch stones, adapted to different powers. These mills are in use in some parts of New England, and in the state of New York. It may be seen in operation in this vicinity.

THE RUST IN WHEAT.

The following remarks from the Annual Report of the St. John (N. B.) Agricultural Society, as to one of the causes of rust in wheat, are thrown out rather as a supposition than an opinion, with the view of exciting inquiry.

The oat draws nutriment from the earth by side roots, which spread over the ground. The wheat plant has similar rootlets, but, in addition thereto, when about to head, sends down a tap-root into the earth, for the purpose, it may be presumed, of pro-

curring the additional nutriment which its large, rich ear requires; and this tap-root has been known to go down to the depth of four feet. We may observe, that up to the time of sending down the tap-root, the wheat is the hardiest and thriftiest of all the cereals, but afterwards the most liable to disease. This delicacy is accounted for, when we consider that land is generally undrained; that not more than a few inches of soil get the benefit of sun, air, and manure; and that, therefore, the root must encounter, in its downward travel, nothing but disappointment. It comes in contact with the cold clay, or a sour, wet subsoil, turns back in despair, and dies. In accordance with the laws of nature, insects, or rust, which is itself a fungus, or vegetable insect, come to finish the work of devastation on the dying plant. The forlorn farmer rails at the climate, and cries out that his wheat is killed by rust, while, in fact, it has died from starvation—from the want of that food, which, as a provident husbandman, it was his duty to have provided for it.—*American Agriculturist.*

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

If the theory in the foregoing article is correct, much may be done to remedy the evil by subsoil ploughing, as the subsoil will gradually become mixed with the surface soil, by deeper ploughing, which should follow subsoiling; and by exposure to the air, it will be fitted to promote vegetation and improve the active soil by the addition of fresh ingredients.

SUBSOIL PLOUGHING.

In the summer of 1844, I harvested a piece of wheat, comprising ten acres of good wheat land, that had been under the plough for about *seventeen* years; it had not been seeded, was very much run down, full of “foul stuff,” June grass, &c. It was clay soil. My crop of wheat amounted to about eighty-five bushels.

In June, 1845, with the subsoil plough, two yoke of oxen, and a span of horses, by *once* ploughing, I most thoroughly subdued the grass and foul stuff, and fitted it for seeding down; and from the same ten acres, in 1846, I had over *three hundred bushels of wheat.*

CLARK BEARDSLEY.

AVON, OAKLAND Co., March, 1848.

—*Michigan Farmer.*

The best snuff in the world is a snuff of the morning air.

For the New England Farmer.

RAISING FOREST TREES.

MR. EDITOR: The attention of farmers has recently been directed to the subject of preserving and extending our forests. To some this may seem like a retrograde movement in the art of agriculture. There may remain in many minds something of the impression under which our ancestors acted, that trees are an encumbrance, and that the woodman's axe is at the foundation of all the most valuable improvements. This impression, to a great extent, had just foundation in the early settlement of the country; but circumstances have greatly changed since that period. Formerly, the chief purpose of farmers was to avail themselves of the natural strength of virgin soils; and it was easy to obtain all that was necessary or expected by passing from the long-tilled fields and clearing away forests to form new ones. This system has had its day, and the means of pursuing it no longer exist. Let the views with which it was once pursued pass away with it. Let our systems and practices be regulated with wise reference to the wants of the present and the probable condition of future generations.

With the exception of small circles around cities, much more land is cleared of forest in the commonwealth than the present population can cultivate to any advantage in grass and grain; some of it is lying in a state of absolute waste. We can convert the most exhausted fields into flourishing forests in a few years. In what more important or praiseworthy labor can we engage? Some tell us this business of raising forests may be an excellent thing for future generations, but they cannot afford to vest capital on so long a tract.

This idea of realizing immediate profit from whatever we do defeats many highly-important enterprises. But this work of planting worn fields with forest trees is not so exclusively for the benefit of another generation as is often supposed.

A field planted by the writer ten years ago, is now of more than double the value it was when the operation commenced; in the next ten years it probably will increase in value still more. We are sitting in this inclement season by good open fires, built of wood, the seed of which was sown less than twenty years since. Those who think this not a sufficiently early return for labor, may go, if they choose, to California, and dig in mud and water for reward more to their taste. We hope, however, there will always remain a sufficient number, steadfastly attached to their paternal homes, to beautify old Massachusetts with just proportions of verdant groves and highly-cultivated valleys.

With recommendations to extend forests, we would contribute as much as in our power in aid of those engaged in this comparatively novel work. Numbers, it is perceived, are engaged in transplanting. This course is believed to be more expensive, and not productive of so good results as sowing the seed. Evergreens, in particular, it is difficult to transplant in so perfect a manner as will be followed by an immediate and vigorous growth. Other kinds of trees more favorable for transplanting are found to flourish better where they were originally planted. But if transplanting could be supposed productive of equally favorable results, the expense of it would alone justify a strong recommendation to sow the seed in preference. Dry seasons often destroy transplanted trees, more rarely seedlings.

Forest seed of every kind will usually vegetate well, if too much art be not employed in the preservation and the planting. Experience seems to prove that it is best to gather the first ripened seed and sow immediately, leaving it chiefly or entirely to the operations of nature to cover the seed. The

natural spread of forest trees indorse this doctrine. Instances have been witnessed where forest seed had been buried in the earth too deep to vegetate for many years, and afterwards, turned near the surface by the plough, has sprung up and flourished. The easiest and cheapest methods of managing forest seed seem most likely to insure success. This, no doubt, will be regarded by many as strange doctrine; they will suppose, with Naaman, that great results can be produced only by great performances. We, like the servants, say, Try simple means.

PEMBROKE, Feb. 28, 1849.

M. A.

EDITORIAL REMARKS.

The above communication is from one who has done much to clothe our barren lands with beautiful and valuable forests; and though he did not commence operations in this branch in early life, he is now enjoying the fruits of his labor. He makes one suggestion that is not duly considered. We now have extensive lands that are almost barren; and if rapid improvement be made, it will be a long time before these lands can all be renovated, so as to produce a good crop. How important, then, to plant forest trees on some of these lands, which will yield a good growth before they could be improved by manure and cultivation! and after the valuable crop of trees, the land will be in better condition for other crops, than if it had remained in an almost barren state, as the leaves and the roots of the trees, with some other parts that decay on the land, will improve its condition very much.

For the New England Farmer.

LIME AS A MANURE.

MR. COLE: Notwithstanding the war waged against lime as a manure, by some of our agricultural writers, we are still of the opinion, that when applied on certain soils, or composted with swamp mud, it is one of the most efficient fertilizers of the soil.

The very general opinion that the soils of Massachusetts contain a sufficiency of this mineral, and the prevailing prejudice against the use of lime for agricultural purposes in the Old Bay State, have, probably, deterred many from making experiments that might have resulted in incalculable benefit to the farmers.

So far as our experience extends, it may be advantageously applied on much of the soil in the Old Colony. Composted with swamp muck, it makes a valuable top dressing for our light, sandy soils; and it is equally efficient when applied to vegetable or grain crops. Sown broadcast on our acid soils, its effect is twofold: it improves the quality and increases the quantity of vegetation. Doctor Dana says, "It is the lime, the base of the salts, which acts, and that always as lime, no matter how it is applied.

"Its action is threefold, each distinct: first, as a neutralizer; secondly, a decomposer; thirdly, a converter.

"1st. Where free acids exist in soil, lime acts as a neutralizer.

"2d. If any acid geine exists in the soil, or any free acids, carbonic acid is then liberated; it acts on the gate of lime; supergeates result, and these are easily soluble.

"3d. The great use of lime is a converter, turning solid and insoluble geine, even solid vegetable fibre, into soluble vegetable food.

"Fertility depends wholly on salts and geino.

Without the last, there is no fruit formed. Without the salts, the geine is locked up, — is insoluble.

"In acid soils, lime acts to eliminate carbonic acid," &c., &c.

Now, Mr. Editor, it seems to me the only question to be settled is this: Are our soils already sufficiently supplied with lime? And in order to elicit the facts, and bring the subject before the proper tribunal, — the public, — that this long persecuted mineral may have a fair trial, we will suggest, that much of our soil is deficient of calcareous manure; that many of our comparatively barren fields abound in undecomposed vegetable matter, which, by the application of lime, would be converted into vegetable food; that, applied to our acid fields, (abounding in iron ore,) and producing a worthless vegetation, its neutralizing influence would render such soils productive of the most valuable grains and the sweetest herbage.

PEMBROKE, Feb. 26, 1849.

C.

EDITORIAL REMARKS.

Lime is often a valuable ingredient in the compost heap, for the purpose of preparing the manure for immediate use. In making compost, mix one part of stable or any animal manure with about two parts of mud or muck, that has been exposed to the air or frost for one season, adding about one and a half or two bushels of fresh slaked lime. In a short time, fermentation will generally commence; and when quite active, it will be well to fork over the heap, and thoroughly mix the different ingredients. In about a fortnight, if a good degree of fermentation prevails, the manure will be fine and mellow like a powder, and far more valuable, as many experiments show, than the same manure without lime.

In this way, the alkali of the lime, with the ammoniacal gases liberated from the animal manure, combines with the mud, renders it friable, and destroys its acidity. As many have applied lime directly to the land, and perhaps in the most improper manner, without success, they have condemned it without fair trial. But farmers are growing more discreet and will in future try this fertilizer with more discretion.

GRAIN AND GRASS FARMING.

At the agricultural meeting, at the State House, February 27th, the above subject was discussed. Hon. Mr. Leonard, of Norton, presided; and, in announcing the subject, he made a few remarks on its great importance to our state, as from the grass and grain crops we have our bread, meat, butter, cheese, &c.

Mr. Cole, of the New England Farmer, opened the discussion. He remarked, that the subject was very extensive. He thought, that in most parts of New England, it was best for the farmer to raise nearly all the produce necessary for his family, as there is generally a disadvantage in raising one crop, and selling it with a view to buy another. If a farmer raises hay wholly, it may, at times, be unsalable, and he may sell good crops, and in buying he may get deceived and buy poor produce. It may be well to raise one crop principally for profit. By a

rotation of crops, a larger amount of produce will be obtained from the same manure, as different crops take different ingredients from the soil. He recommended manuring highly for corn, and then following with small grains without manure, and then with grass. Compost manure was best; it should be covered rather deep in light lands, else the gases would soon escape. On heavy lands, it should be slightly covered. More experiments are necessary in raising wheat in this state, both with different mineral manures, and different kinds of grain for seed. Mr. Job Sumner, Roxbury, succeeds well with Smyrna wheat.

Mr. Bartlett, of the Cultivator, said, that he had adopted Mr. Phinney's mode of raising corn and grass, which is, to turn over the sod in flat furrows, and roll them down, harrow in the manure, plant corn, cultivate on a level, and the next spring, with a light plough or cultivator, make the soil fine without disturbing the sod, and sow to grain and grass. In this way he was very successful, more so, he thought, than by turning up the inverted sod. He had tried lucerne, orchard grass, and tall meadow oat grass; but they were inferior to herdsgrass, redtop, and clover.

Mr. Bigelow, of Walpole, said, that farmers there generally failed in attempting to raise wheat. But one neighbor succeeded by ploughing and applying manure in the fall; but he could not say whether the manure was ploughed or harrowed in. The soil light.

Mr. Hiram Boyles, of Princeton, said, that the wheat crop failed in his vicinity, excepting the Black Sea wheat.

Hon. Mr. Brooks, of Princeton, gave the result of experiments in a rotation of crops for eleven years: first, potatoes; second, corn; third, wheat; then grass eight years. In his estimate of profit, he reckoned interest at six per cent. on land at fifty dollars per acre. He added nothing for manure, as it was produced from hay estimated at six dollars per ton, consumed on the farm.

Cost of an acre of potatoes, and interest of land,	\$32 72
Produce, 225 bushels of potatoes, at 25 cents,	45 00
Profit,	<u>\$12 28</u>

Cost of an acre of corn, and interest of land,	\$27 50
Produce, 45 bushels at 85 cents,	\$38 25
Fodder,	7 00
Total,	\$45 25
Profit,	<u>17 75</u>

Cost of an acre of wheat, and interest of land,	\$21 60
Produce, 20 bushels, at \$1,33½ cents, \$26 66	
Straw,	5 00
Total,	\$31 66
Profit,	<u>\$10 06</u>

Cost of harvesting 12 tons of hay, . . .	\$24 00
Interest, 8 years, on 1 acre of land, . . .	20 00
Total,	\$44 00
Produce, 1½ tons, 8 years, at \$6 per ton, . . .	72 00
Profit for 8 years,	\$28 00
Profit of 1 acre for 11 years,	\$68 09

In this estimate, the labor of a man was reckoned at one dollar per day, and that of oxen at fifty cents.

Mr. Brooks showed by estimates, that there was more profit in raising corn in Massachusetts than in Ohio, and that, with a due degree of intelligence and industry, farming was more profitable than any other business.

Mr. O. Brigham, of Westborough, said, that he followed the method of Mr. Wm. Clark, of Northampton in raising corn and grass. His land was a sandy loam. He ploughed six or eight inches deep; applied compost manure, and harrowed it in; planted corn, cultivated on a level; was not troubled with weeds. He sowed grass seed at the last hoeing, which was from the middle of June to the middle of July. This mode is very successful. His corn costs forty cents per bushel. Red top binds out. He prefers fowl meadow grass, as it makes better hay.

Mr. Jones, of Wayland, made some remarks on the profit from potatoes, though that was not the subject before the meeting. His profit was sufficient to pay all expense, pay for the land, and leave a balance.

Mr. H. B. Pearson, of Harvard, said, that as potatoes had been unusually high for a few years past, the profit on that crop was no criterion of the general profits of farming.

Mr. H. C. Merriam, of Tewksbury, exhibited very handsome specimens of corn which he had produced by a cross between the Canada corn and a variety from Nantucket.

BEST MODE OF OFFERING PREMIUMS

FOR ENCOURAGEMENT AND IMPROVEMENT IN AGRICULTURE.

At the agricultural meeting, at the State House, March 6, Hon. M. P. Wilder, president, in the chair, the above subject was discussed. Mr. Wilder read the following letter from the president of the Essex Agricultural Society, which was then placed in the hands of the editor of the New England Farmer, as directed by Mr. Proctor.

GENTLEMEN: When I saw announced that the legislative farmers were about to take into consideration the best mode of offering "premiums for the encouragement of agriculture," it struck me that the theme was highly appropriate to their position. This state itself has done so much to aid the enterprise of the farmer, that it is meet that those who govern the state should be consulted in the application of this bounty.

Apprehensive that it may not be in my power to be present at the discussion this evening, I thought I might be pardoned in putting on paper a few suggestions. The main purpose of offering premiums is, to awaken the interest and attention of the cultiva-

tor to the subject — to impress him with the necessity of doing what he would not otherwise be inclined to do. The direct benefit accruing from the obtaining of premiums is of secondary importance, compared with the lessons of instruction acquired in the efforts to obtain them. While there are some who will seek knowledge for the sake of knowledge itself, there are many who will swallow it with more avidity when sweetened to their taste.

Care should be taken that the object for which premiums are offered, should be not only valuable in themselves, but of a character to afford a fair chance for competition. It is desirable to embrace as great a variety as practicable, that all classes may be more or less interested, and disposed to encourage the exhibitions with their presence.

Among the premiums which have been most generally approved, and from which, in my judgment, have sprung the most beneficial effects, are those which have been awarded for successful efforts in *ploughing*. Ever since my attention has been directed to this subject, — now nearly *thirty years*, — have *ploughing matches* been continued, and always with unabated interest. They seem particularly well adapted for the gratification of the public. They create an agreeable excitement of mind, that has a cheering and healthy influence. "All work and no play makes Jack a dull boy." This adage is equally applicable to *old boys* as to *young ones*. At each succeeding exhibition of skill in ploughing have some new peculiarities or improvements been developed. Compare the structure of the ploughs now used with those that were in use when these matches were first introduced, and will any one hesitate to acknowledge the advances that have been made? Is it not therefore beneficial, once a year, to exhibit to the people specimens of best skill in the structure and use of the most essential implement of agriculture — *the plough*? The offering of premiums for the management of *farms entire*, first suggested by COLONEL PICKERING, a source most worthy of regard, has ever been with us, in Essex, a favorite method of bestowing our bounties. If societies can be so fortunate as to command the services of intelligent committees, who will observe with discrimination and report with fidelity, in this way more practical intelligence can be condensed than in any other. Nor would I undervalue the untaught descriptions from the *hard hands* of the workingmen themselves: though their periods may not be so finely polished or perfectly pointed, they not unfrequently embrace the germ of all that is worth remembering. Such statements give a summary view of all the individual objects of premiums within the limits of the farm. Let any one accompany such men as *Pickering*, or *Lowell*, or *Allen*, in their view of the farm, of their county, and if they do not say that the lessons of instruction derived from their unpremeditated remarks upon the objects that come within their observation, are among the most valuable agricultural lectures, I will acknowledge that their experience does not accord with my own.

Essays on subjects connected with agriculture have, in several instances, been favored with our bounties. By these, it is not intended simply the compilations of ideas from books on the subject: but the bringing together the results of careful observations and well-conducted experiments, and the comparison of facts that naturally spring from them. No one can attentively watch the cultivation of an acre of any crop worth raising through the season, and note in his own way the various phenomena presented to view, without having many queries arise, no explanation of which can readily be found in any printed treatise. If he will but carefully arrange and digest these observations, at the close of the season, this operation will constitute an essay

equally beneficial to the one that *produces*, as to him that *peruses*.

My paper will not admit the views in relation to *dairy products, the best mode of cultivating grasses, the renovation of orchards, &c., &c.*, that had occurred to my mind; but what I have said may be taken as a sample of what might be said on other subjects almost innumerable.

Very truly yours,
DANVERS, March 6, 1849. J. W. P.

Hon. Mr. Denny, of Westborough, remarked, that the bounties of the state to agricultural societies amounted to seven thousand dollars, and this was dispensed by competent judges. The societies make a return of their doings, an abstract of which is published. One class of men are satisfied with the honor of obtaining premiums; the principal object of another class is to get the money. In some cases books have been offered, in part, as premiums; and he was sorry to say, that this was not satisfactory to the competitors. Societies had followed the same path in offering premiums for twenty-five years. He thought it would be better to give more premiums on well managed farms, and generally to give larger and fewer premiums. Instead of premiums for the best cow, they should be for the best dairy, with a report on the breed of cows, mode of feeding, management, &c. Premiums should be offered for good practical essays on agriculture. He thought the time had come for a change. Ploughing matches had led to great improvements in the plough, and now other implements should receive attention.

Hon. Mr. Calhoun, secretary of state, said, that this was a novel but important subject for discussion. He thought there was room for great improvement in our cattle fairs. The business of examining articles and reporting was done in too much haste. As the returns to the state may be made until the 10th of January, there was an opportunity to make deliberate reports. From some societies the reports are good; but in some cases, particularly on the subject of swine, some person, who has no practical knowledge of agriculture, writes a report before the time, and endeavors to make a display of wit rather than of knowledge. Such reports may serve to amuse at the time, but they do not answer the purposes intended as a return for the state bounty. The state furnishes societies with money, and they ought to furnish useful reports. Premiums offered for single cows are generally taken, not by farmers, but by others who have only one cow and feed high; and cows are often short-lived from high feeding. The owners of such cows can furnish no useful information on management. The great object should be to elicit information of general interest. In Plymouth county, a supervisor is employed to travel over the county, for the purposes of observation, and make a general report. This is a good arrangement. Mr. Allen, a skilful farmer, is employed in that office. He wished to see officers of the State Agricultural Society at these meetings, that we might concentrate all the aid we can upon this great subject. Much is done by agricultural papers and societies for improvement.

Mr. William Parker said, that there was but little advantage in giving premiums for milch cows, as we

seldom hear of them after the premium is given. If the owner can get two dollars more for a cow for beef, she is sold for that purpose. Premiums are seldom taken by those who have several cows.

Mr. Cole, of the New England Farmer, said, that he had attended cattle fairs in different parts of the country with great pleasure, and generally, they were conducted by the most intelligent men; but he thought that some improvements might be made. Premiums should be given for economical and profitable farming, rather than for great crops from a single acre of land, that cost more than they are worth, while the rest of the farm was neglected. This is bad management, and should not be encouraged by agricultural societies. Horticulture is a branch that receives attention at agricultural exhibitions. Sometimes an amateur cultivator will raise half a dozen very large specimens of fruit on a dwarf tree, and take the premium in preference to the most skilful cultivator in the country, who has acres under the most profitable and successful management. At some horticultural exhibitions, premiums are awarded for the greatest variety of fruits, when not one quarter of them are worth cultivating, and no distinction made between the good and the poor. The inexperienced, judging from appearance only, are often deceived. In estimating the quantity of milk given by cows, it should be weighed, as this rule would be uniform. Measures differ very much.

Mr. H. C. Merriam, of Tewksbury, said, that in Worcester county, the premium calf might be traced to the premium ox, and the effect was not such as was complained of by Mr. Parker.

Mr. Denny thought it would be a good mode to offer a premium for the best dairy of cows raised by the farmer himself, and another for the best one half of the cows raised by the farmer.

The president observed, that he was highly pleased with the remarks that had been made, and he hoped that they would be duly considered by those who dispense the bounties of the state. Observations from those who have the care of the state affairs are entitled to serious consideration.

AMERICAN APPLES IN ENGLAND.

Mr. P. Barny, (of the firm of Ellwanger & Barny,) editor of the horticultural department of the Genesee Farmer, furnishes from England, for that paper, the following account of American apples in that country, which contains valuable hints to the growers and exporters of fruit.

Large quantities of American apples have been brought into Liverpool recently, but the most of them have been of indifferent quality, and badly gathered and picked; and hence they do not command high prices, nor do us any credit, — nor can the shippers gain by the operation. There is an unfailing market here for our orchard products; but to make the shipment of them profitable, it is absolutely necessary that select varieties be sent, that they be carefully hand-picked and packed in the best manner. One barrel will then sell for as much as three or four; and the freight, which is the great

item, will be no more on a barrel that will sell more readily for five dollars, than one that will bring only two dollars. Many of the apples I see here cried up as "nice American apples," "beautiful American apples," &c., would scarcely sell at all in our market; yet they are sold here at three to six cents each.

The English people have fairly given up growing apples for market, unless it be Codlins, &c., that come in early for cooking, and Beautus, &c., for drying. They see it will be impossible for them to compete with American orchardists. Yesterday I examined two or three hundred varieties in the fruit rooms of the London Horticultural Society; and among them all, there was not a single large, clear-colored, fine-looking specimen. One would suppose, at first sight, that they were all wind-falls, gathered from under the trees last August. The Roxbury Russet, Fall Pippin, and Rhode Island Greening, were among the best specimens; and they were not half the size we grow them. The most esteemed varieties pointed out to me by Mr. Thomson, such as Pearson's Plate, Warsley Pippin, Pomme Royal, (not our Pomme Royal,) Golden Harvey, Sturmer Pippin, &c., are small, inferior looking things, — in size from that of a small Pomme Gris to that of a Siberian Crab; but they are generally harder and richer than ours. The Newtown Pippin and Roxbury Russet come nearer the English taste than any other varieties we cultivate. I had some Northern Spy and Melon with me, that I have here now in London in fine condition. They have elicited the admiration of all who have seen them. There are, indeed, no such apples to-day in England. The Northern Spy may be sent to Covent Garden market, just as well as to Fulton or Washington markets, New York. The pears in the markets here now are from France or the Island of Jersey. They come in half-bushel baskets, containing fifty to one hundred, according to the size of the fruit. They are packed in very dry, soft meadow hay: a layer of this hay, two or three inches deep, is laid on the bottom, then a layer of fruit, then another of hay, and so on to the top: the fruits are not allowed to touch, and in this way they go any distance with entire safety. I saw at Liverpool little baskets of Glout Moreau and Chaumontel, fifty in each, sold for three to four dollars each, to the confectioners and market women to retail.

In Covent Garden market, which is head-quarters for all rare and fine garden commodities, I see fine St. Germain's, (the old one,) Marie Louise, Passe Colmar, Winter Nelis, Beurree Rance, Easter Beurree, &c., sold at twelve and a half to eighteen and three fourth cents each. If we ever succeed in raising pears beyond what may be required for home consumption, they will find market and good prices here. Not one person in a thousand — I might say five thousand — ever tastes a fine pear.

THE SHEEP IN ITS VARIOUS FORMS.

Wise men regard with suspicious eye the assertions of those who profess to accomplish a variety of dissimilar effects by a single cause. It is customary to be jealous of the pretensions of "Universal Restorative," "Heal All," or any other panacea warranted to cure diseases of all symptoms or all origins. And the proposal to *adapt one breed of sheep to all circumstances* of food, climate, and situation, making it answer all the purposes for which sheep are usually employed, seems justly to meet with similar distrust and suspicion.

From the varied habits of sheep, the widely different circumstances in which they are placed, and the opposite results which the several kinds are intended

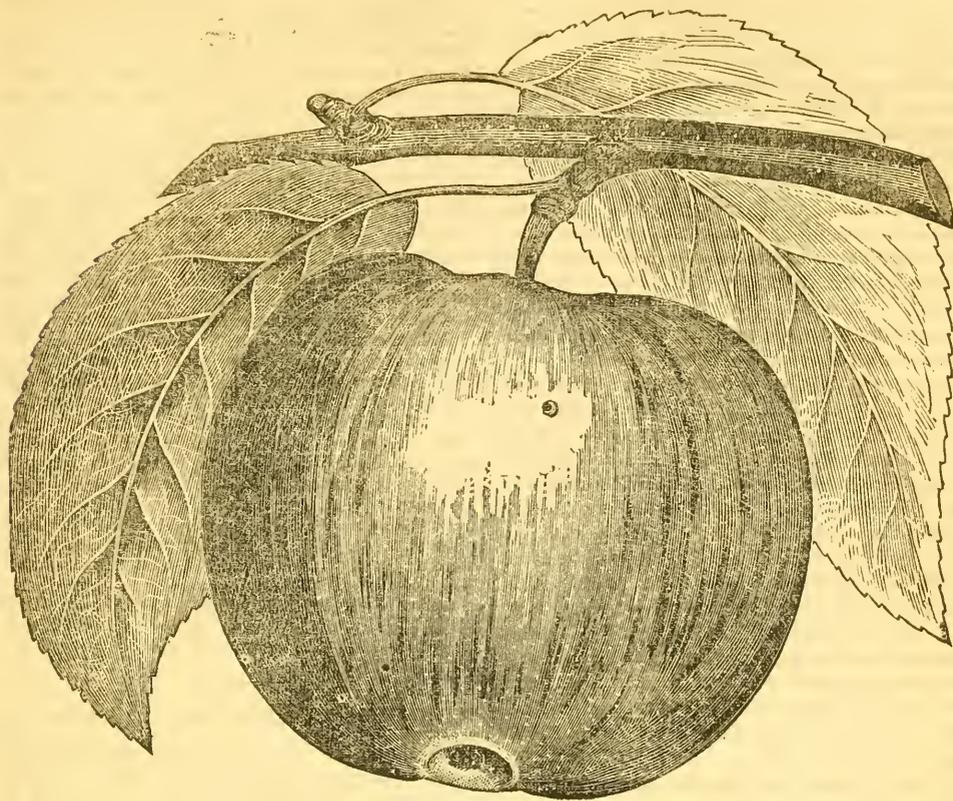
to produce, we are at once led to doubt the practicability and value of the scheme. We are induced still further to view the proposition as contrary to the order of nature, when we consider the fact that there is scarcely any animal which appears under so many forms as the sheep. In Persia and other parts of the east, it is found with a tail of twenty pounds weight; at the Cape of Good Hope, the tail is worth as much as all the rest of the carcass; there and in other parts of Africa, the sheep have clusters of horns, to the number of five or six. In Madagascar, the same horns and tails are to be seen, the ears hanging down like those of a hound. About Aurengabad, between Agra and Bengal, they are found without any horns at all, but so strong that, being bridled and saddled, they will carry children of ten or twelve years of age. The (so called) sheep of Chili somewhat resemble camels, being hare-mouthed and hunchbacked, and they are used for carriage and field labor. Those of China are small, with short tails, which, however, are a lump of fat. Terren, in his Voyage to Surat, mentions sheep with bent snouts and pendent ears, with wool more coarse and stiff than goat's hair. In Africa, to the north of the Cape of Good Hope, they never eat grass, only succulent plants and shrubs. In Thibet, the sheep have large, broad tails. In Natolia, these tails are laid in carts on wheels. In Anspach, in Germany, a small sort exist, that are shorn twice a year, and also lamb every spring and autumn. In Juliers and Cleves, also, they are said to lamb twice a year, and bring two or three at a time — five sheep have brought twenty-five lambs in a year. On the slave coast of Africa, the sheep have no wool; "but," says the old Dutch traveller Bosman, "the want is supplied with hair, so that here the world seems inverted, for the sheep are hairy and the men are woolly." This hair forms a sort of mane, like that of the lion, on the neck, and the same on the rump, with a bunch at the end of the tail. The Javanese sheep have tails weighing occasionally forty or fifty pounds, having a coat of red and white hair. Four-horned sheep are numerous in several parts of Tartary, and a few have six horns, with wattles under the throat. — *Agricultural Gazette.*

ADVICE IN POULTRY KEEPING.

The principles upon which I rely for success in keeping hens, are, 1. To have two breeds — a few to hatch and rear the chickens, and twice the number of everlasting layers, as eggs are more profitable than chickens; 2. To get a hatch as early as possible in spring, and to keep them well — these never cast their feathers like the old birds, and if they begin to lay in autumn, lay more or less all winter; 3. Never to keep old fowls, (none but favorite fowls ought to be kept more than two years;) old birds lay larger eggs than pullets, but not nearly so many; 4. To give them the best barley I could get, and as much as they could pick up once a day in summer, and twice in winter; they are not only more profitable, well kept, but the eggs are better. The two breeds I like best are the spotted Dorkings for sitting, and the Pheasant breed for laying. — *Agricultural Gazette.*

SAGACITY OF THE HORSE.

It is stated that if a horse be shut up in a pasture where there is no water, he will, at certain times of the day, make it a practice to stand in those situations where water is nearest the surface, and thus indicate the best place for digging for it. Those who allege this to be the fact, say that horses have the faculty of smelling the water, like the camels of the African desert, or the cattle of the South American "pampas."



NORTHERN SPY APPLE.

Size, large; form, roundish-conical, varying occasionally to flattish conical, slightly ribbed or undulating; skin, very fair and smooth, of a greenish yellow ground, mostly covered with rich dark red, with stripes of brilliant crimson and purplish red, frequently russet around the stem, numerous small dots over the surface, which is covered with a thin bloom; stem rather long, in a broad, deep, irregular cavity; calyx, small, closed in a narrow, tolerably deep, slightly ribbed basin; flesh, yellowish-white, fine texture, tender, very crisp, juicy, of a mild, delicious, aromatic flavor. In use in spring, and often keeping till midsummer.

The Northern Spy, for a few years past, has excited more attention than any other apple. It is beautiful, splendid, and excellent. Remarkable for its freshness after long keeping. We have had this fruit for several years, and for spring and early summer, it promises to excel every other variety. Yet it has not been fairly tested in New England as to its bearing properties, fairness, &c. It is a great grower, and remarkably hardy. We have cultivated it several years in Maine, and in this section, without the least injury from cold winters. It will endure more severe cold than the Baldwin or Greening.

The growth of this variety is upright, forming a

compact top, which needs thinning to expose the fruit to the sun. Owing to its upright habit, it is advisable to graft on wide-spreading trees. High culture and pruning are necessary to keep up a vigorous growth and produce a good crop of fair fruit.

The original tree of the Northern Spy was raised on the farm of Mr. O. Chapin, East Broomfield, N. Y., from seed carried from Connecticut. So it is in reality of New England origin. We do not name this, claiming honor for New England, for she already has a large share in the fruit line, but we mention it as a circumstance showing that it may be adapted to our climate. As this variety blooms about a fortnight later than other apples, it is more likely to escape injury by spring frosts.

We can furnish scions of this valuable apple.

SUBSTITUTE FOR THE POTATO.

M. Masson has lately grown a new root, called the *ulluco*, which can, it is thought, replace the potato. It originally came from Peru, and grows perfectly well in the open air: the flavor is very near the same as that of the potato. The part above ground furnishes a very agreeable vegetable, something like the bean in flavor. Three crops of the green part can be obtained in the same season. — *Paris Paper.*

PLANK FLOORS FOR HORSES.

One of the greatest evils in the use of plank floors for horses, is in their construction. In most cases, they are made too slanting, even five or six times as much as would be necessary to carry off the liquid manure. A great many owners of horses have no thought of this evil. In numerous cases, we have said to the keepers of horses that their floors were too steep, and their horses stood with pain, or a continued and unnatural effort was necessary to sustain them on so steep a descent. The reply has often been, that the descent was only an inch or two; but on measuring, we have often found the inclination from four to six inches in a length of nine feet. Thousands of horses are suffering in this way without the knowledge of the owner.

A descent in the floor of one inch in eight or nine feet is sufficient. This slight inclination will not seriously affect the horse. If a horse has tender feet, that suffer from a hard floor and dryness, the evil may be remedied by making first a level floor to the stable, and then a floor slanting slightly, extending almost to the fore feet; and under the fore feet place a few inches in depth of sand, loam, or other suitable material for the horse to stand on. This may be moistened, and afford the advantages both of a soft bed and moisture; which may be done by the use of litter, or other substances, to relieve horses that stand on hard floors.

We copy the following remarks, on the injurious effects from plank floors, from the Western Cultivator:—

Why are elevated plank floors in stables injurious to horses' feet?

1st. Because they deprive the hoof of receiving certain assistance, which they require for their well being, and which in a state of nature they receive by moisture. The hoofs of horses are a horny, elastic, porous substance, capable of receiving moisture, which is indispensably necessary to their well being. In a natural state they receive it, and in a domesticated state they might, if men would hearken to the mandates of nature. The evils of domestication to the horse are recognized by many intelligent observers and admirers of the horse. In proportion as we vary in our treatment to the horse, from his natural way of living, in the same ratio do disease and lameness exist. 'Tis a solemn fact—start not at the idea—that the diseases of horses are induced by the deeds of men. Candid observation will prove the truth of this assertion. The horse's natural floor, the earth, is the best and only suitable floor for him: on that, his hoofs receive requisite moisture; on plank floors, they do not. Why? Because it is not there. The plank floors are generally (always, I believe, when they are made fashionable) made higher at the fore part, than the hind part; consequently, what little moisture there may be from the dung or urine, is drawn away from the fore feet: the effect is, the horse becomes lame in the fore feet, hoof-bound, narrow heeled, &c., while the hind feet remain sound and healthy. Why? Because the hind feet receive moisture from the dung, urine, &c., when the fore feet fail to receive it. It will be found, upon examination, that nine tenths of the horses that are lame, are so in the fore feet; stage, carriage, road, and hackney horses, that are stabled all the time, (except when in use,) are generally the subjects of such lameness. A majority of writers and farriers acknowledge and deplore the prevalence

of lameness in the fore feet; and it is easier to cut a knot than untie it. They say that bad shoeing is the cause of all this lameness. So blind are they to the cause and effect, that they appear to me to know not what they say. They have got the boot on the wrong leg, and I will show it. Blacksmiths are like other men; they have their failings, and may perhaps lame horses occasionally; but because of this, must they bear the blame of all other men's misdeeds? No, no; they should not, nor will not, if we would only seek for the true cause of all this lameness. I am a blacksmith; I stand good for the defence of myself and brethren when falsely accused. The same causes produce the same effects. Horses that are kept up are generally shod all round by the same men, and in the same manner. Well, now, if bad shoeing lames the fore feet, why will it not lame the hind ones in the same manner? Tell us why, you fault-finders who falsely accuse horse-shoers, or else desist: look at the effects of your own bad management, niceness, and false philosophy, and you will find that your dry plank floors are the cause of so much lameness, and not bad shoeing.

2d. Another evil, attendant upon making the stalls higher at the front, is, that it compels a horse to stand in an unnatural position, which is certainly improper. When a horse stands in such a manner, the muscles and arteries of the hind legs are kept constantly on the stretch, frequently producing windgalls, &c. These ideas, if true, may suggest the idea of level stable floors, and of the importance of moisture to the hoof, which may be imparted by washing, daily, the legs of the horse with water, that must of necessity be kept in the stable.

PRUNING STONE FRUIT TREES.

It has been but a few years since the cultivators of fruit have been in the habit of pruning peach-trees at the extremities of the branches, instead of cutting off limbs at the trunk. This system of shortening-in, as it is called, is gaining ground, and it is a great improvement. The reasons for this mode of pruning are evident on examination. Most kinds of stone fruit grow rapidly, and bear the greater part of their fruit on new wood, which is, of course, near the ends of the limbs. In this way a tree spreads over much land, and has naked branches near the trunk; and pruning at the trunk causes the gum to ooze out, which sometimes endangers the health or life of the tree.

On the contrary, by pruning at the ends of the branches, the tree is confined to a small space, the wounds have no unfavorable effect, or only affect the twigs, and not the trunk, and much new wood is produced for the production of fruit.

We might say much more in favor of the shortening-in system; but we prefer offering a valuable communication from the "Working Farmer," remarking, in regard to the time of pruning, that it may be done at any time from the fall—nearly the close of vegetation—to the time vegetation commences in the spring.

SHORTENING-IN PEACH-TREES, &c.—At a meeting of farmers, which is held weekly at Lyons Farms, the following facts were elicited:—

Several of the persons present gave evidence of the propriety of shortening-in the limbs of the peach, plum, nectarine, and other rapid growing trees. The effect of this practice has been to render them

not only more durable, but to increase the quantity and quality of the fruit.

The peach-tree, in common with the others named above, is short-lived in our climate; and in addition to the ravages of the peach worm, and the disease called the *yellow*s, the following may be given as the cause:—

The tree grows more prolifically here than in Europe, and in each year's growth extends its branches many feet; the new wood always growing on the ends of the previous year's growth, and the fruit in all cases occurring on the new wood. The weight of the crop, in consequence, is so far removed from the body of the tree, as to render each limb a *lever*; and the result is either to split off the branch, or, from its extreme pressure at the point of its insertion at the tree, to compress the capillary tubes of the main trunk, and thus destroy its organism.

The fruit, by this means, is robbed of its necessary pabulum, and prematurely ripens or falls off. The number of fruit-bearing shoots at the same time increase to so fearful an extent, that the roots are unable to supply the whole number with sufficient nutriment, and our markets are flooded with half-grown and prematurely ripened peaches.

If, however, when the tree is young, the shoots are shortened in one half their length each year, the new shoots will occur nearer the parent stock, and with less leverage for its destruction; the crop of fruit may safely be greater in weight, although less numerous, as the fruit will be larger, and both the health and beauty of the tree will be preserved.

A dispute arose as to the proper time and manner of performing this shortening-in or trimming process, and the result was as follows:—

Time.—During winter, the farmer has most leisure, and the branches cut are of so small a size, that no harm will ensue from the effect of frost, nor will the trimming cause any premature swelling of buds, to be injured by spring frosts.

Manner.—With a very sharp knife, first head down the tree to the required height, so as to be convenient for the gathering of the fruit; then trim all protruding branches, to improve the symmetrical appearance of the head; cut out all centre-inclining shoots, which crowd the tree and cannot get the sun; these should be cut close to the trunk; then shorten in all other new growth one half, and if excessive, two thirds, cutting next beyond a wood bud, avoiding the fruit buds; and by this means the new shoot, starting from that bud, will cover and heal the wound perfectly; cover the trunk of the tree with a mixture of soft or whale oil soap and potash water or wood ashes; pour a gallon of boiling water on the trunk near the ground, to kill the peach worm, if any exist in the bark at the surface of the ground; manure the tree with cold manure, muck, or pond mud; and you may have fine fruit and long-lived trees so long as this treatment be continued.

Similar treatment was recommended for the other kinds of trees named above, and numerous instances quoted of the advantages which has arisen from the proposed plan.

This farmers' club, as I suppose it may be called, forms a useful adjunct to the ordinary means of information to be obtained by farmers. A question is chosen, and each person present states what he may know on the subject; and when the conversation flags, some member asks a question, which is sure to elicit an answer from another member; and thus the experience of all present is collated by each member.

HOW TO MAKE A HOTBED.

Every man who has a garden and some knowledge of gardening, and desires a supply of early vegetables, should make a hotbed, in February or March:

April will do in the northern part of the state, and where it is only desired for starting early plants, like tomatoes, peppers, celery, &c.

An old window sash will answer for covering the bed; but sash made on purpose, without cross-bars, and the glass lapped, is the best. Make a frame of boards or plank, the size of the sash; or, if sash is made on purpose, let the frame be about four feet wide, and say twelve feet long, with cross-bars where the ashes meet—the front board about twelve inches wide and the back twenty, to give sufficient slope.

Select a place for the bed, where it will be fully exposed to the sun, and sheltered from the north and west winds. Mark out the size of the bed, allowing six or eight inches on all sides larger than the frame. Then drive a stake at each corner, as high as you intend to build the bed. Then take fresh stable manure, in a good state of fermentation, and commence building the bed by mixing the manure thoroughly, and putting on successive layers, beating it down with the fork.

The height of manure requisite will depend on the time at which the bed is formed and the purpose for which it is intended. If made in February or March, and intended for cucumbers, &c., a good deal of heat will be required for two or three months, and about three feet high of manure will be necessary. But a bed made in April, for the purpose of forwarding early plants, to be transplanted into the garden, will not require more than half that quantity.

When the bed is made, put on the frame, and put in about six inches of good fine earth; put on the sash, and let it remain two or three days for the heat to rise, when it will be ready for sowing.

The articles usually sown in hotbeds are cucumber, radish, lettuce, and cress, for early use; and cauliflower, broccoli, cabbage, egg-plant, tomato, pepper, celery, &c.

It often happens that the heat in the bed will be too strong at first; in that case the sash must be raised at the back, so as to let the heat and steam escape. A mat or old cloth should be placed over the opening to keep out the cold wind. In sunny weather, the sashes must be raised considerably, and, if very warm, the plants should be shaded during the middle of the day. An hour of sunshine will often destroy a whole bed of plants, if the sashes are closed tight.

In severe weather, mats or straw should be laid over the bed for protection, especially during nights. Keep the bed moist by gentle waterings. The water should stand several hours in one corner of the bed, so as to become a little warm, before being used. As the weather becomes warmer, and the plants increase in size, plenty of air must be admitted.—*O. C. Almanac.*

METHOD OF PASTURAGE IN HOLLAND.

The following economical method of pasturage has long been observed by the Hollanders: When eight cows have been in a pasture so long as completely to eat all the grass they can graze, and of course can no longer obtain their necessary food, thereupon two horses are turned in, and find sufficient food for some days. After these begin to fail of procuring as much as their nature requires, four sheep are introduced, and find enough for their necessities, and even abundant supply, for weeks.—*Pennsylvania Cultivator.*

WIRE WORMS.

The Albany Cultivator states that a farmer near Albany has preserved his corn from wire-worms the present season by rolling the seed in sulphur.

Domestic Department.

CARE OF PRESERVES, &c. — As the weather becomes warm in spring, preserves, sauces, jellies, &c., are liable to become sour, if not attended to, unless they are composed of a large amount of sugar or other preservative. By scalding preserves, &c., occasionally, after the weather becomes warm, and setting them in a cool place, much may be done to continue them in a good condition. In some cases, it may be necessary to add more sugar in order to keep conserved preparations into summer.

In scalding them, great care should be taken to cover them closely before they cool, and in all cases expose them as little as possible to the air. Mould is considered a vegetable substance, of a low or imperfect order, which is propagated by fine seeds floating in the atmosphere, that readily vegetate in numerous substances that have a strong tendency to decay, as in various preparations of fruit, bread, cheese, pumpkin, &c., &c. Heating substances that are liable to mould, destroys the seeds of mould, and close covering of vessels prevents their admission.

EDUCATION OF THE YOUNG FOR AGRICULTURAL PURSUITS. — Where an ardent thirst is begotten, in the minds of youth, to become thoroughly prepared for an honorable and useful discharge of the active duties which make up the sum of a happy life, the first great step is taken towards the accomplishment of so glorious an end. We turn our attention to parents, the natural guardians of the young, possessing power to mould and fashion the tender mind, and lead and direct aright the early inclinations as they are first developed. To parents we appeal, assured their influence will be exerted to lead the children under their care to contract an attachment to the employment in which they are engaged. Let the son be thoroughly instructed in every branch of labor to be performed upon a farm, and its management in general, and no doubt, with proper opportunities for instruction from suitable books and well-regulated schools, he will fall in love with the science, and delight in the practice of agriculture. In the successful prosecution of this highly-honored and peaceful pursuit, female efforts and influence are indispensable to lead to auspicious results. I am aware that some persons, of nearsighted and contracted views, have expressed the opinion that the female mind ought to be occupied altogether in the contemplation of unreal things, of ideas that float in a feverish or excited imagination, and of outward accomplishments, and be content to dwell upon the surface of the subjects, without an attempt to dig in the mine of knowledge. No one honored with the title of mother can for a moment listen to any such suggestion, but will, I am sure, put forth their utmost exertion for the fullest expansion and enlargement of the intellectual and moral capabilities of their daughters, as their sons. — *Mr. Ives's Address before the Jefferson County (N. Y.) Agricultural Society.*

EGG CREAM. — Take the yolk of an egg, with a dessert-spoonful of cream or new milk, and, if convenient, add two drops of oil of cinnamon: this will form a mixture sufficient to serve three people to mix with their tea; for cream being chiefly the oil

of the milk, and the yolk the most nutritive part of the egg, they are both lubricating and nourishing. The oil of cinnamon is cordial and tonic.

Boys' Department.

IS THE BEE THE PIONEER OF CIVILIZATION? — The author of *A Tour on the Prairies*, says, the Indians regard the bee as the harbinger of the white man, as the buffalo is of the red, and say, that in proportion as the bee advances, the Indian and buffalo retire. The wild bee is said to be seldom met with at any great distance from the frontier. When the honey-bee first crossed the Mississippi, the Indians, with surprise, found the hollow trees of their forests suddenly teeming with honey; and nothing can exceed the greedy relish with which they banqueted for the first time upon this unbought luxury of the wilderness. At present, the honey-bee swarms in myriads in the noble groves and forests that skirt and intersect the prairies, and extend along the alluvial bottoms of the rivers.

THE WAY DOMESTIC ANIMALS COLLECT THEIR FOOD. — The horse, when feeding on natural herbage, grasps the blade with his lips, by which it is conducted between the incisors, or front teeth. These he employs for the double purpose of holding and detaching the grass, the latter action being assisted by a twitch of the head. The ox uses the tongue to collect his food. That organ being so directed as to encircle a small bundle of grass, which is placed by it between the incisor teeth, and an elastic pad opposite to them in the upper jaw, — between these the herbage is pressed and partly cut, its complete severance being effected by tearing. The sheep gathers his food in a similar manner as the horse, but is enabled to bring his cutting teeth much nearer to the roots of the plants, in consequence of the upper lip being partially cleft. For his upper lip is thin, and is susceptible of considerable mobility; while that of the ox is thick, hairless, with a very limited action. — *American Agriculturist.*

Health.

WET FEET. — In endeavoring to preserve health, there is no subject of more importance than that of keeping the feet dry. Wet feet affect the whole system, even the head. The feet may be cold, almost to freezing, without injury; but damp, and more especially wet feet, for one who is not in constant exercise, have a most destructive effect on health; and as a person values this inestimable blessing, he should cautiously guard against any thing that is liable to destroy it.

Those who are exposed to water and mud, so common at this season, should be provided with stout and tight boots or shoes, and they should be frequently stuffed with some water-proof composition. Some persons use neat's foot oil, others castor oil. Tar mixed with oil or tallow is good, but it has an unpleasant smell. Linseed oil is also used. A simple and convenient preparation, which we generally use, with excellent success, is one part of beeswax and two parts of beef's tallow.

The leather should be made quite warm, and the composition applied in a warm state, and the leather again exposed to as much heat as it will bear, without injury. Apply it to upper and sole leather, till it is fully saturated, even so full that it begins to come through the upper leather. Repeat the application occasionally during the wet season, and very often when constantly exposed. A little extra expense and pains, to preserve health at this season, is economy.

Balm-of-Gilead buds, bottled up in New England rum, make the best cure in the world for fresh cuts or wounds. Every family should have a bottle of it. The buds should be gathered in a peculiar state; just when they are well swelled, ready to burst into leaves, and well covered with gum. They last but two or three days in this state.

If not convenient to add rum to the buds at the time of picking, put them into a bottle, and cork the bottle tightly, and the buds will keep in good condition for a long time.

Mechanics' Department, Arts, &c.

NEW APPLICATION OF INDIA RUBBER. — The Liverpool Albion describes an ingenious application of caoutchouc, or prepared India rubber, and which shows the expanding power of the preparation. It has been made and patented by Mr. Sangster, of Regent Street, to a very useful purpose. It is to supersede springs of metal for the expansion of parasols, and for compressing the ribs of them, and of similar articles. The India rubber is prepared by a chemical process, or by some process of science made into the shape of a small pipe or hose; it is also vulcanized. By these means the elastic power and the tenacity of the gum are increased to a perfectly marvellous degree. A small ring of the material so prepared, less in width than the eighth of an inch, is cut from the pipe, and placed around the top of the ribs. When the ribs are expanded, the elastic power of the ring enables it to be stretched so as to suit the exigency, while its leverage and power of contraction are so great, that directly the power is removed by which the expansion is secured, it forces the ribs together, and keeps them firmly compressed. As an application of science to a practical advantage, it is very curious and convenient. — *Farmer and Mechanic.*

A NEW THING IN MECHANICS. — Mr. Joseph Harris, Jr., of this city, has invented and patented a box and axle, which requires no oil, and yet almost completely escapes that destroying angel of all machinery — friction. At least so we cannot but hope, from seeing a working model, which, we understand from Mr. Harris, has been put in a lathe and turned one thousand revolutions in a minute, — a motion which, with a common-sized railroad truck wheel, would carry it about two miles in a minute, or one hundred and twenty miles in an hour, without producing any perceptible heat, and without the use of a particle of oil. The mechanism by which a result so desirable and astonishing is effected, is somewhat after the manner of that discovered by the prophet Ezekiel in his vision, "a wheel in the middle of a wheel," or rather six wheels in the middle of one. The box is about five inches in diameter, and the axle three inches; and in the space between them are disposed, at equal distances, six anti-friction

rollers, which are kept in their places by teeth at both ends, playing into corresponding circles of teeth in both the box and axle. There is no bearing upon these teeth, which are cut to the anti-friction curve. The bearing is entirely upon the smooth portion of the rollers between the teeth. The only service of the teeth is to prevent the possibility of the rollers getting out of place.

That this invention will work admirably in the first place we have very little doubt. How it will wear, is a question which must be tested by experience. At all events, it is a thing which railroad directors and engineers will find it for their interest to look at carefully. — *Chronotype.*

COMPOSTS.

EDS. CULTIVATOR. — You ask about my compost heap. I live in a large manufacturing town, with a population of twelve thousand or more. I have a cart with a tight box, holding thirty-six square feet. I send this cart out with my oxen, and give the parties driving and filling it seventy-five cents for a full load of night soil; having first made a basin of dry marsh mud, of which I have abundance, into which this night soil is emptied. We have several large founderies, that use much charcoal; the dust they cannot burn. This dust they give to me; and it only costs me cartage to bring it to my night soil. Again, we have several large factories, that use anthracite coal. I take from them their sifted ashes; this costs me nothing but carting.

Again, we have other factories that use half coal, half wood. For these ashes I give one cent per bushel. Now, I mix all these ingredients into a home-manufactured pourette. I ought to have said, that to each load of night soil I add one bushel of Plaster of Paris, which, with the charcoal dust and plaster, will render it inodorous.

Next, I buy oyster-shells at three and a half cents per bushel; burn them with cedar bush, from a mountain lot I own. One bushel of shells makes two of lime; but I cover the heap with an equal quantity of marsh mud, which, in fact, is a species of turf. And here I have a large source of cheap manure, at one cent per bushel. As for anthracite coal ashes, I am satisfied that on all my lands they are useful, particularly for a top-dressing for fruit trees; and on clay lands, they act mechanically in opening the soil, so that air can get down to the roots of plants.

Our soil is a red, decomposed sandstone; and lime acts most beneficially on it. I prefer small doses, say forty bushels of slaked lime per acre, repeated every two or three years, with a bushel of Plaster of Paris per acre each year. I have found the waste of a flaxmill, after twelve months' decomposition, very valuable manure. — *Cultivator.*

ROLLING WHEAT.

On the advantages, if any, of rolling wheat, I am sorry to say I can furnish nothing from personal experience; but they are so manifest to the observing farmer, that it is a matter of surprise that any one should neglect the trial of the experiment. Although I do not know, yet I should think that we of this latitude — thirty-nine degrees — were more exposed to loss from our winter grain *freezing out*, than in colder climates; for it is not the degree of cold that causes the injury, nor its long continuance, but the decisive way our Spring has of coming in, which is to advance two steps during the day, and fall back one at night, and then, as though unequal to the task, the gentle goddess shrinks back to her winter retreat, — the fountains and flowing streams, — and the grim

tyrant again locks up his prisoners, almost escaped. By this alternate freezing and thawing, the roots of the grain are broken and raised above the surface of the ground; much of it, held by only one fibre, is blown about by the cold winds; and the shade of that which is thrifty, or a short spell of dry weather, soon destroys every prospect of its heading.

Now, suppose a roller to be passed over the field; it will press all this standing-out wheat close to the ground, so that its roots can branch and take a fresh hold; and as every clod will be crushed, many a fibre will be covered by the crumbled earth, and thus take a fair start with the rest. But the roller has another use—to cover grass seed. Here we sow clover seed the last of February, or first of March, in order that it may have time to form a good root before hot weather, which often destroys it. If the ground is in proper order, the roller will press the seed slightly into the earth, which will cause it to germinate immediately; and should this be frozen out, there is another portion, which, being slightly covered, will be a little later, and, by its *being* covered, will be better able to stand either frost or heat.

I am here reminded of an incident which goes to prove the advantage of *pressure* upon wheat in the spring. A neighbor hauled out his clover seed chaff to sow, using a cart for the purpose. From the time the wheat covered the ground, you could see two parallel lines of verdure traversing the fields, just the distance that the wheels were apart; and this was distinguishable in some places, after the wheat was cut, by the superiority of the stubble.

Now, is it not strange that with these things so plain to every one, the roller is so little used? Well, the secret is just this: We believe in it, *but we ain't got any roller*. We don't think of it, or, if we do, we put it off until reminded by the condition of the ground, that it would be a fine time to use it. We then *vow* that we'll have one by next spring; but alas! you know what resolutions of *future* amendment are worth. Well, now, *I am going* to have one. It costs me too much to do *without it*. What do you say, reader? All those in favor will say, "Where's my axe?" W. H. G.

FREDERICK COUNTY, Va., 1849.

REMARKS BY THE EDITOR OF THE NEW ENGLAND FARMER.

Much has been said by intelligent cultivators of the advantages of rolling winter wheat, in order to rest the plants that have been thrown out of the ground by frequent freezing and thawing, and all opinions are in favor of this operation. In this section but little winter wheat is raised, but in sowing summer grain, there is great advantage to both grain and grass in rolling the land, besides leaving the land smooth for the scythe and rake.

MILLET.

This plant is cultivated both for seed and for fodder; and although it is a long time since it has been tried in different parts of the country, yet it is but very little cultivated. For fodder, corn is usually preferred, as it yields a far larger crop. The following remarks are from Professor Emmons, in an article in the American Journal of Agriculture and Science:—

He states that he has subjected this grain to an analysis, in order to determine the proportion of nutritive matter it contains. He finds that, compared with wheat or Indian corn, except in oil, it exceeds both in its power of sustaining life. The grain is "rich in the elements that produce bone and muscle, and

its straw is not deficient in the elements common to the cultivated grasses." He thinks it might be cultivated in this country with profit, as food for animals, as it yields from sixty-five to seventy bushels to the acre.

Millet is much used in some parts of Europe—England, Germany, and Poland—where it is used as a substitute for rice, sago, or hominy, and also as food for poultry. It requires a warm, sandy, rich soil, which should be well pulverized to a good depth. It is planted in drills, and should be sown the latter part of April, or early in May. Millet was formerly raised to some extent in Pennsylvania, but was soon abandoned, not being considered so profitable as some other crops.

ANIMAL ENJOYMENT.

Many persons have been puzzled in regard to the cause of some animals being made to subsist on others, as it seems to be a barbarous mode of obtaining their sustenance. Those who cannot see why the great fish should eat the little ones, may read with interest the following article from Buckland's Geology:—

Aggregate of Animal Enjoyment increased, and that of Pain diminished, by the Existence of Carnivorous Races.

The inhabitants of the earth have been divided into two great classes, the one herbivorous, the other carnivorous; and though the existence of the latter may, at first sight, seem calculated to increase the amount of animal pain, yet, when considered in its full extent, it will be found materially to diminish it.

To the mind which looks not to general results in the economy of nature, the earth may seem to present a scene of perpetual warfare and incessant carnage; but the more enlarged view, while it regards individuals in their conjoint relations to the general benefit of their own species, and that of other species with which they are associated in the great family of nature, resolves each apparent case of individual evil into an example of subserviency to universal good.

Under the existing system, not only is the aggregate amount of animal enjoyment much increased, by adding to the stock of life all the races which are carnivorous, but these are also highly beneficial even to the herbivorous races, that are subject to their dominion.

Besides the desirable relief of speedy death on the approach of debility or age, the *carnivora* confer a further benefit on the species which form their prey, as they control their excessive increase by the destruction of many individuals in youth and health. Without this salutary check, each species would soon multiply to an extent exceeding, in a fatal degree, their supply of food, and the whole class of *herbivora* would ever be so nearly on the verge of starvation, that multitudes would daily be consigned to lingering and painful death by famine. All these evils are superseded by the establishment of a controlling power in the *carnivora*; by their agency, the numbers of each species are maintained in due proportion to one another—the sick, the lame, the aged, and the supernumeraries, are consigned to speedy death; and while each suffering individual is soon relieved from pain, it contributes its enfeebled carcass to the support of its carnivorous benefactor, and leaves more room for the comfortable existence of the healthy survivors of its own species.

The same "policy of nature," which is thus beneficial to the great family of the inhabitants of the land, is established with equal advantage among the

tenants of the sea. Of these, also, there is one large division, that lives on vegetables, and supplies the basis of food to the other division, that is carnivorous. Here, again, we see that, in the absence of *carnivora*, the uncontrolled *herbivora* would multiply indefinitely, until the lack of food brought them also to the verge of starvation; and the sea would be crowded with creatures under the endurance of universal pain from hunger, while death by famine would be the termination of their ill-fated and miserable lives.

The appointment of death by the agency of *carnivora*, as the ordinary termination of animal existence, appears therefore, in its main results, to be a dispensation of benevolence: it deducts much from the aggregate amount of the pain of universal death; it abridges, and almost annihilates, throughout the brute creation, the misery of disease, and accidental injuries, and lingering decay; and imposes such salutary restraint upon excessive increase of numbers, that the supply of food maintains perpetually a due ratio to the demand. The result is, that the surface of the land, and depths of the waters, are ever crowded with myriads of animated beings, the pleasures of whose life are co-extensive with its duration, and which, throughout the little day of existence that is allowed to them, fulfil with joy the functions for which they are created. Life to each individual is a scene of continued feasting, in a region of plenty; and when unexpected death arrests its course, it repays with small interest, the large debt which it has contracted to the common fund of animal nutrition, from whence the materials of its body have been derived. Thus the great drama of universal life is perpetually sustained; and though the individual actors undergo continual change, the same parts are filled by another and another generation; renewing the face of the earth, and the bosom of the deep, with endless succession of life and happiness.

HOW TO RAISE GOOD POTATOES.

My object in writing, at this time, is to give to you my method of growing potatoes free from the rot. I have practised it two seasons with entire success, and have now six hundred bushels of fine Mercer potatoes in my cellar, and all free from the disease.

My method is, to plough the ground late in the fall or early in the spring, harrow it smoothly before planting time, then haul out say fifteen tons rotted manure, spread it broadcast, then take two horses and a plough, and back up two full furrows, the furrows just meeting in the backing; leave a strip one foot wide, and back up two more; and so continue till you have completed the lot. Then turn about and split these double furrows open with a single furrow, then commence dropping your potatoes (pieces of cut potatoes, containing at least four eyes) in the furrow, six inches apart. After the lot is dropped, take your horses and plough, and throw two good furrows, (one round of the team to a row,) just meeting on the top; dress off the top, clearing the row of stones, clods, &c.; then sow broadcast five bushels common salt over the ground immediately after planting; cultivate well till the plants are in blossom, and you will have a good crop; never cultivate potatoes when in blossom.

When the crop is ready to gather, clear the ground, take your two horses and plough, turn a furrow from each side of the row: let a boy pick up the scattering potatoes; then turn out the row, pick up the potatoes; then hoe down the ridge; lastly, harrow over the ground, pick up the remaining potatoes, and the work is finished. The agriculturist must at once observe that, by this process, he gets a broad, loose bed for the potatoes to grow in, also double depth of soil; then you are certain of good dry po-

tatoes. I would here observe that potato ground is the very best for producing a good crop of wheat; and I would advise farmers to grow a greater surplus of this most valuable root. If there is no market, store them, and feed them to your horses, cattle, and hogs; feed them in your stable through the winter; give your stock good bedding; clean out your stables once a week; make as large a manure heap as possible; and you will not be troubled with the potato disease, nor that worse malady arising from always taking out of the meal tub and never returning any; you will thus come to the bottom.—*Ohio Cultivator.*

THE EDUCATION OF OXEN.

A "Glenburn Farmer," in the Bangor Whig, contends that the practice of testing the merits of working oxen, at cattle shows, by the mere ability to drag the heaviest possible burden, is unsatisfactory and unsafe, as not exhibiting the most valuable qualities of the animals, nor showing their most useful capacities in the performance of their ordinary work. We annex a part of his sensible remarks:—

"I would suggest that at the next trial of oxen at the Society's Show, it should be upon a judiciously loaded cart, and that the exercise should consist of drawing, turning, and backing. What the public want in regard to working oxen is, an exhibition of the best trained cattle for farm purposes. Nor is this all. We want to see the *man* who trained them, and his manner of doing it. We want an exhibition of good teamsters as well as good teams; for very much of the merit of a yoke or team of cattle belongs to the teamster. And instead of giving all the premiums to good oxen, one half, at least, should go to good drivers. No driver, however, should receive a premium for himself or oxen, however good they might be, who used profane language during the exhibition. A rule of this kind would have changed the direction of more than one premium at the late trial.

"Good teamsters are worth from five to ten dollars a month more than poor ones; and yet, with this difference in price, it is very easy to find a hundred, and I believe I might say a thousand, poor ones for one good one. No man can be a good teamster who is not a gentleman. He must be gentle, kind, and careful. No good teamster will put his oxen to an *unnecessary* waste of strength, or to *unnecessary pain* by the use of the goad stick, or brad."

WET LANDS.

Farmers, as a general thing, are too remiss, says a correspondent of the Germantown Telegraph, in the business of improving their wet lands. In some sections, where the rapid increase of population has greatly increased the price of arable soils, and their products, we find something like a regular system of drainage adopted, and a very decided and marked improvement in the management of most of the details of the farm, as the inevitable result. There can be no question, that most of our low bog lands possess high value, and are calculated to become extremely valuable for most agricultural uses, when properly managed and freed from the deteriorating effects of the supernatural waters by which they have been so long submerged. We find that all low lands, which are continually or periodically submerged, produce some aquatic plants, all of which are permitted to grow and decay without being removed. The *tumus* thus produced is consequently allowed to accumulate, and when the water is drawn off, we find a deep, rich bed of muck, which is replete with the most energetic vegetative principles,

and capable of sustaining exhausting and different crops of grain and grass, for a series of many years, without the assistance of any manure, or of any ameliorating agent, except the plough or spade. If farmers would only study their own interest in this matter, we should see few bogs and more fields; there would be less complaints as to the scarcity and high price of land, and the general appearance and condition of many rural districts would be immensely improved. Drainage, when systematically conducted, is by no means a costly undertaking; and when one has a family of boys, and can avail himself of leisure seasons, it will be found to involve but small expense, even under the most inauspicious circumstances. Lands thus reclaimed possess high value for mowing and grazing purposes, and, when once well stocked with grasses, require to be ploughed but seldom. An occasional top dressing of compost, with a liberal annual application of gypsum, house ashes or lime, is all that is requisite to sustain a high vegetative activity, and maintain them in a condition of the most perfect health and heart. — *Lancaster Farmer*.

FACTS IN PRUNING.

The action of roots and that of leaves are reciprocal. If you diminish the quantity of foliage, you will proportionably lessen the increase of roots. If 100 represents the quantity of roots made by a tree with all its foliage, then 50 will represent the quantity of roots formed by a tree similar to the other in every respect, except in having the production of foliage repressed, by whatever means, to the extent one half. You will, therefore, perceive that by summer pruning, both roots and tops are equally reduced, and that what may be termed the balance of power between these is still maintained. On the contrary, if you prune only in winter, the roots are, in consequence, but little affected, their increase for the season having been completed in the previous summer; and in the following season, the whole amount of force exerted by the full complement of roots is brought to bear on a top limited by winter pruning, and this force is evinced by over-luxuriance, which some remedy by root pruning.

With regard to young spray springing from the ends of previously shortened shoots, it may be cut back to two eyes, in all cases. — *Lindley*.

HOG MANURE.

Well knowing the excellence of hog manure, I tested it against guano and bone manure in the cultivation of turnips; the result was quite equal to guano, and beat the bone dust hollow; and I found the same result on light as on heavy land. I prepare my manure under cover, having a large dry shed, in which I put a layer of dry coal ashes about a foot thick, to which the deposits of the hogs are taken, both liquid and solid; and as soon as it begins to ooze out, I put on more ashes; and so on, until it gets about four feet in thickness. I then commence a fresh layer, and treat it in the same manner. After lying some time, it is turned over two or three times, when it is fit for drilling. In this way, I have put in forty-five acres of turnips the present year, and no other manure; the result being open for the inspection of every one.

I find the droppings of three hogs, carefully preserved, to be an ample dressing for two acres, and quite equal to three sacks of bone dust per acre. And I consider, if we can obtain such valuable manure for nothing but the labor, it is better than putting our hands into our pockets, and paying six or eight dollars an acre for artificial manures. — *Agric. Journal*.

BE KIND.

Be kind to thy father — for when thou wert young,
Who loved thee so fondly as he?
He caught the first accents that fell from thy tongue,
And joined in thy innocent glee.
Be kind to thy father — for now he is old,
His locks intermingled with gray:
His footsteps are feeble, once fearless and bold:
Thy father is passing away.

Be kind to thy mother — for lo! on her brow
May traces of sorrow be seen;
O, well mayst thou cherish and comfort her now,
For loving and kind hath she been.
Remember thy mother — for thee will she pray,
As long as God giveth her breath;
With accents of kindness then cheer her lone way
E'en to the dark valley of death.

Be kind to thy brother — his heart will have dearth
If the smile of thy joy be withdrawn;
The flowers of feeling will fade at the birth,
If the dew of affection be gone.
Be kind to thy brother — wherever you are,
The love of a brother shall be
An ornament purer and richer by far
Than pearls from the depth of the sea.

Be kind to thy sister — not many may know
The depth of true sisterly love;
The wealth of the ocean lies fathoms below
The surface that sparkles above.
Thy kindness shall bring thee many sweet hours,
And blessings thy pathway to crown;
Affection shall weave thee a garland of flowers
More precious than wealth or renown.

THE OLIO.

A SAD CONDITION. — Miravaux was accosted by a sturdy beggar, asking alms. "How is this," inquired Miravaux, "that a lusty fellow like you, is thus employed?" "Ah," replied the beggar, looking very piteously, "if you did but know how lazy I am!" Miravaux gave him a piece of silver.

IRISH WIT AND GALLANTRY. — One day, when our streets were a perfect glare of ice, a lady pedestrian lost her balance and fell. As we aimed to assist her, we encountered a genuine son of the Green Isle, who, on assisting the lady to rise, exclaimed, "Faith, ye must be a lovely good lady; for don't the blessed Book tache us that it is the wicked that stand on slippery places?" — *Ind. State Sentinel*.

NEVER GO BACK. — Never go back — never. What you attempt, do with all your strength. Determination is omnipotent. If the prospect is somewhat darkened, put the fire of resolution to your soul, and kindle a flame that nothing but the strong arm of death can extinguish.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18¢ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume.

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DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, MARCH 31, 1849.

NO. 8.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

PREPARATION OF SEED WHEAT.

By sifting, with suitable sieves, the large plump berries may be separated from the small and shrivelled, which will make a great improvement. Then wash thoroughly in water, stirring violently, and skim off all floating substances. Violent washing will rub off the seeds of fungus which might cause smut or other diseases, and destroys the eggs of insects; and by skimming, the light seeds and other refuse substances may be excluded.

Various steepers are used as a further prevention of smut, &c., for which we have recommended violent washing. The following is cheap, convenient, safe, and probably as effectual as any; and it has the important advantage of floating oats, and grains of comparative lightness, that sink in pure water.

Make a solution of salt, as strong as it can be made, which is probably about one quart of salt to two gallons of water. In this steep the wheat, and remove worthless matters that rise; also the grains of wheat of comparative lightness. It is best to soak the wheat twelve or twenty-four hours; but when thus prepared, if the weather is favorable, it will keep in good condition for several days or weeks, if the brine is strong, as it will not vegetate in it.

We have kept wheat a week or two in this way; and a farmer informed us that he had prepared his wheat in brine, when his interval, where he intended to sow, was overflowed, and he kept it in the brine three weeks, and, as it was late, he then spread and dried it, and sowed it the next spring with success.

After soaking wheat in brine, drain off the brine, which is a good manure, and add sufficient slaked lime to make it dry enough to sow. Sow soon after the lime is added. If any accident or storm prevents sowing soon, return the grain to the brine, as the best preservative.

GLASS MILK-PANS.

Any person who is acquainted with the nature of glass, and the peculiar qualities of milk and cream, must be confident that it is a superior article for

milk-pans. All other substances are liable to objections. Wood absorbs milk, and the oily matter in the cream, and soon becomes foul. Tin, zinc, iron, and other mineral substances are corroded by milk, by which the milk is injured, or poisoned, and the vessel gradually destroyed. Brown earthen ware was formerly much used for milk. This is glazed with lead, which is consumed by the acid in milk, rendering the milk unwholesome.

Glass is a pure substance, and may be easily kept in a clean condition; and it is not corroded by the milk. It is impenetrable by any substance in milk or cream, and requires far less attention to keep it in a pure state than those substances that are liable to corrosion, or to imbibe substances that they contain. For several years glass milk-pans have been used in England, and they are preferred, to all others, notwithstanding almost every other available material had been used.

A specimen of this valuable ware has been left at our office for inspection. The price is seventy-five cents single, eight dollars per dozen. Although this may seem rather a high price in the beginning, yet it is low, as the pans are thick and stout, and, with careful usage, will last for ages; and they require less labor to keep them in good condition.

COAL ASHES.

In answer to the inquiry whether the crude parts or cinders of coal ashes are of any value on any part of the farm, we reply, that what the inquirer calls cinders, as we suppose, is generally called *clinkers*, and is produced by a powerful heat, that melts the coal, which, on cooling, becomes nearly as hard as melted bricks in a brickkiln. This substance would not, probably, decompose for ages, and will answer no useful purpose as manure. It may be used on the farm for the same purposes as small stones, in filling up low places, and as a layer over the covering of ditches, for the water to ooze through, and retain the soil.

In using the fine ashes of hard coal for manure, we consider the *clinkers* a disadvantage, where a fine

soil is wanted; on coarse lands, for grasses, &c., they may be no disadvantage if pressed into the ground by a roller. Good anthracite, or bituminous coal, burned in a moderate draught, will form no clinkers, and with good management, they will not be formed in a dwelling-house; but they are produced in abundance in furnaces where a powerful heat is required.

NOTICES OF PUBLICATIONS.

A GAZETTEER OF NEW HAMPSHIRE, by John Hayward, author of the "New England Gazetteer," "Book of Religions," &c., 264 pp. octavo; embellished with beautiful engravings; of neat typography and elegant binding. — This work contains descriptions of all the counties and towns in the state; of its principal rivers, mountains, harbors, and islands; with statistical accounts of its agriculture, manufactures, and commerce; with a great variety of other useful information. It should be in every business place, and in every family in the state of New Hampshire: it is also valuable in many business offices, and, as a matter of useful intelligence, in different parts of the country.

THE AMERICAN BEE-KEEPER'S MANUAL, by T. B. Miner, embellished with engravings, 350 pp. 12 mo. Published by C. M. Saxton, New York; sold also by F. S. Saxton, 19 State Street, Boston. — This is an elaborate work, in which the author gives his own long and varied experience, availing himself also of advantages from the productions of most other writers on the subject. We have not time for a thorough and critical examination of this manual; but from a general view, we like its plan and execution, and think it will rank high as a valuable standard work on an important branch of rural industry — on the very proverbial pattern of industry. For a few years past, Mr. Miner has occasionally given to the public able articles on the management of bees, which have given him the reputation of a skilful apiarian. As there is now a great inquiry for a new work of this kind, we have no doubt that this book will meet with a good reception, and extensive sale.

THE FARMER'S EVERY-DAY BOOK, containing the Popular Elements of Theoretical and Practical Agriculture; also, a System of Education for Agricultural Life, and Hints on the Means of promoting Health and correct Moral Principles among Laborers; with a Dictionary of Terms, and Five Hundred Receipts on Rural and Domestic Economy, by Rev. J. L. Blake, D. D., of Orange, N. J., author of a Biographical Dictionary, &c. — This work is announced, and will soon be published by Messrs. Lea & Blanchard, and E. H. Butler & Co., Philadelphia; and Cady & Burgess, Baker & Sanborn, and C. M. Saxton, New York.

AGRICULTURAL REPORTS made to the Standing Committee of the Rhode Island Society for the Encouragement of Domestic Industry.

NEW AGRICULTURAL PAPERS. — One of the strongest evidences of the great improvements making in agriculture, and the important position that this profes-

sion is assuming, is the increase of agricultural papers, and the liberal patronage this class of journals receives, as shown by the good taste in which they are generally executed, and the ability with which they are conducted. The following are new works, that commend themselves to the public both by their good appearance and intrinsic worth.

THE WORKING FARMER. A large octavo, monthly, by Professor Mapes, New York city. 50 cts per year.

THE WOOL-GROWER AND MAGAZINE OF AGRICULTURE AND HORTICULTURE. A monthly octavo, by T. C. Peters, of the Buffalo (N. Y.) Wool Depot. 50 cts. per year.

THE VALLEY FARMER. A large monthly octavo, of 24 pages, at \$1 per year. By M. Gates and E. Abbott, St. Louis, Mo.

THE CANADIAN AGRICULTURIST. A double octavo sheet, monthly, at \$1 per year, by J. Buckland and Wm. M'Dougall, Toronto, Canada West.

ACKNOWLEDGMENTS.

From Mr. Leonard Cheney, of Southbridge, a box of apples, put up in very neat style, containing three varieties for their names and an opinion of their qualities. No. 1 is a large yellow and red apple, tolerably pleasant for eating and excellent for cooking; name not known. No. 2 is the Old Nonsuch, remarkable for its tenderness and excellent quality; but as it is a moderate grower, is rather small, and the fruit not fair on old lands, it is but little raised in this section, not being profitable for the market. In new regions it is more popular. No. 3 is of medial size; color, red; of very good quality for the table, being more tender than the Old Nonsuch.

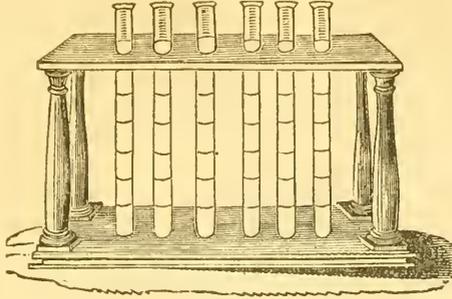
From Mr. Edward Booth, Springfield, a large yellow apple, rich and very good, strongly resembling Peck's Pleasant, and it may be that variety; but as it is late and discolored by bruises, it is difficult to identify. Peck's Pleasant is a superior apple, but moderate in growth and bearing, and the fruit is not usually fair. Its culture is declining in its native state, Rhode Island, where it has been the most popular.

We are indebted to Mr. John Washburn, of Plymouth, for scions of Monamct Sweeting, and Holmes apple.

Of Mr. R. S. Mackintosh, stall 105 Faneuil Hall Market, large, red, sweet apples, excellent for baking, but too hard, yet, for the table. He obtained these in the vicinity of Syracuse, N. Y., where they are kept a year.

Of Mr. P. Lawson, Lowell, a specimen of excellent potatoes, remarkably mealy, without name. As the colors of potatoes become so faded and changed at this season, we cannot determine whether they are identical with any of the fifty kinds on which we are experimenting. Mr. L. says, that they are superior in production as well as quality.

Indolence leaves the door of the soul unlocked, and thieves and robbers go in and despoil it of its treasures.



LACTOMETER.

The lactometer is composed of a wooden frame, with a set of long glass tubes, marked with inches, and at top with eighths of an inch. The object of this apparatus is to ascertain the quality of milk given by each cow, as shown by the quantity of cream when it has risen to the top; as its depth is indicated by the graduated marks in the glass.

The milk from each cow should be put into a separate glass; and it should be taken from each at the same stage of milking, as the first, the middle, or the last. Each glass should be filled at precisely the same height. And care should be taken to turn the milk into the tube immediately after milked, excluding the froth, as, by setting only a few minutes, the cream will begin to rise.

The lactometer is highly valuable to every one who keeps cows, as it will enable him to judge of the value of cows by the proper criterion, the richness or value of the milk, instead of its quantity or weight. One cow may be regarded as the best in the herd, as she gives the largest quantity of milk; but on investigation the milk may prove to be thin and poor, and of less value for dairy purposes than a smaller mess given by another cow, whose milk is remarkable for its richness.

It requires only seven quarts of milk of some of the Jersey cows to make a pound of butter, while fifteen to twenty quarts are necessary from some cows that have been distinguished for yielding large quantities of milk. Some say that the average quantity of milk required for a pound of butter is ten quarts; but we think that twelve quarts would be nearer the general average.

The richness of milk depends very much on the feed of cows; therefore, in making experiments on the comparative value of milk from different cows, the cows should all be fed in the same manner, for several days or a week before making the experiment.

SIMPLE CURE FOR COUGH IN HORSES.

Two years ago, (says a correspondent of the Albany Cultivator,) one of my carriage horses had an extremely bad cough, which had continued for six or eight months: different applications were made without effect. I applied to a man who I knew dealt in horses, and had paid some attention to their diseases, for a remedy. He at once told me that he had never

found any thing so effectual for a bad cough as human urine, given a few times, by discharging into a bucket of water and letting them drink it, or on their food and eat it. I directed my driver to do so, and in one week the horse was completely relieved. I have frequently had it tried with the same good effect.

REMARKS BY EDITOR OF NEW ENGLAND FARMER.

We had a horse long afflicted with a severe cough, though several medicines were given, but without effect. We then kept him wholly on sheep's orts, some of which were taken up from the manure, where they were covered several inches deep, from feeding under shelter in stormy weather, the usual mode being to feed on the snow. These orts from the manure were eaten in preference to good hay, and the horse soon recovered. The orts had absorbed the urine of the sheep, they had also imbibed the qualities of the dung, which has powerful medicinal effects, particularly in the measles.

INDIAN CORN.

In the raising of Indian corn, some experiments have been made which have produced singular results. Mr. Fowler, of Ohio, planted one and a half acres of ground with three different kinds of corn—half acre of china, half acre of yellow gourd seed, half acre of white flint. The result of the crop was seventy-three and a half bushels shelled corn from the china, fifty-six and a half from white flint, and fifty-four from the yellow gourd seed. The result was beyond any thing before raised in Northern Ohio, and so much in favor of the china corn, that he has every year since planted it. When he commenced with corn, it was a flint corn from seven years' use, and it has become so closely allied to gourd seed that the kernel is very much dented, and the ears from twelve to twenty rows; the same remarks hold good in relation to the white flint. From sixteen years' cultivation and acquaintance, it seems to bear no similarity to its species sixteen years ago: it was then an eight-rowed flint corn; it is now some sixteen to twenty rows gourd seed; which demonstrates the fact that this climate changes the species of corn from one kind to that of another. — *Pittsburgh Visitor.*

HEAVY OATS.

At the late show at St. Johns, New Brunswick, three samples of oats which were exhibited weighed respectively 47 lbs., 46½ lbs., and 44 lbs. the bushel.

For the New England Farmer.

GRAFTING GRAPE VINES.

MR. EDITOR — Sir: I noticed, in the sixth number of the current volume of your paper, an article on the grafting of grape vines, signed James Oliver, Lynn. My late husband (Judge Darling) accidentally made a discovery in the science of grafting vines, which was very useful to him, and which, I believe, he never communicated to the public; and presuming that his discovery may be equally as useful to some of your readers as it was to the judge, I proceed to communicate the facts.

The judge was considered, by all that knew him, a very scientific and successful horticulturist, but for many years had no success in grafting vines. He exerted himself to get all the information that could be obtained, both by reading and conversation, and tried every experiment that his own ingenuity could suggest, but wholly without success. The flow of sap from the stock, at the season of grafting, would be so great as to prevent the stock and scions uniting; therefore he thought that he should be obliged to abandon the propagation of those varieties that would not grow from cuttings, although convinced that others were in possession of a secret by which they succeeded.

One year, the judge planted a great many grape seeds of different kinds, hoping thereby to obtain new and valuable native varieties; but when they came to blossom, most of them proved to be non-bearers. Accordingly, when he had his garden laid out, the next spring, he had them dug up as mere cumberers of the ground; but after they were dug up, they looked so fresh and healthy that it seemed to him a pity to throw them away, and he concluded to make one more effort at grafting. He accordingly set a variety of scions, after the different modes of grafting, and planted out the stocks; and, much to his surprise, every graft took well and grew vigorously. He then, of course, thought much of the cause of his success, and came to the conclusion, that the breaking of the roots, in transplanting, caused the sap to flow in a different direction, and gave the stock and scion a more equal chance. He repeated the experiment many times afterwards, and with uniform success. Mr. Oliver did not state, in his communication, whether his stocks were transplanted at the time of grafting or not. If they were not, his success was undoubtedly owing to the late date in which his grafts were set, and after the growth of the vine had proceeded so far as to prevent bleeding. And would not grafts cut and set in July or August be equally successful? Who can give information upon the subject?

Very respectfully,

MRS. NOYES DARLING.

NEW HAVEN, Ct., March 10, 1849.

EDITORIAL REMARKS.

The grafting of grape vines is not well understood, and Mrs. Darling has done an important service to the cause of horticulture in throwing light upon this subject. The late Judge Darling contributed liberally to the cause of improvement, by his valuable communications for the press, which were distinguished for scientific research, close investigation, and plain, practical details; and though he is no more among us in person, his spirit of intelligence and enthusiasm has pervaded the land, and it will live with the enlightened cultivators of the soil.

The facts presented in the foregoing communication correspond with the practice of some cultivators

in deferring the grafting of grape vines until they are in foliage, or partially leaved out, as the sap then becomes a thick mucilaginous substance, and the vines cease to bleed. We hope that various experiments will be made the ensuing season on this subject, and that some of our friends will communicate useful results.

For the New England Farmer.

THE GARDEN.

MR. COLE: There is probably no part of the farmer's domain that affords a greater amount of profit and comfort than the garden. Its crisp and tender vegetables, its delicious fruits, are not only congenial to the palate, but highly conducive to the health of the family.

The earlier the luxuries that the garden affords can be brought to the table, the more valuable they become; and hence it should be an object to prepare the land and sow the seed at a time which will promise the earliest maturity.

In our own experience, we have advanced the pea crop from two to three weeks by following this cheap and simple method: As soon as the ground is open in the spring we dig a trench from six to eight inches deep, and fill it half full of recent horse manure. Over this we place such a quantity of earth as may be necessary to prevent over-heating the peas, and sow them, covering the usual depth. We then take two boards of any convenient width, and nail their edges together, forming a covering like the roof of a building. This box we invert over the peas on cold nights and stormy days, but remove it in favorable weather, to give the plants light and air. By pursuing this course, you may have peas six inches high before your neighbors think of sowing them.

Tomatoes. — Last spring, our early planted tomatoes in frames all failed; and in order to have as early a supply as possible, we went to a gardener, and gave him twelve and a half cents for two dozen plants. When we planted these out with our utmost care, we saw a few little frosty fellows, that had sprung from self-sown seed of the previous year, scattered over the bed, which we allowed to *live*, not knowing but *they might*, if the season should be long and warm, add to our supply. In due time, these were transplanted into hills duly enriched with hen manure. They had a much more healthful growth, and matured their fruit as early as the hot bed plants, put out under equally favorable circumstances.

This leads us to infer that tomatoes may be advantageously planted in the hills where they are to remain in autumn, or as early in spring as the earth will admit of working. Good seed seldom fails, and the earlier it is sown, as a general thing, the earlier the maturity.

Asparagus. — How often we have heard the exclamation, "I wish I had your asparagus bed!" to which we could only reply, "You can have just as good a one, if you'll set yourself about it." Yet no one knows the value of this delicious vegetable by seeing it grow in rich luxuriance. It is only when placed upon the table that its excellence can be duly appreciated, and not then fully, for its healthfulness on the stomach is its highest praise. We can show you a good bed of it, as it is almost as easily raised as pigweed!

The asparagus bed should be well supplied with fine manure early in spring, if it was not done in autumn, and it should be well forked in as early as the ground is dry enough to work, after which a good dressing of salt or strong brine should be given.

If the ground is so salt as to prevent weeds and grass from growing, it will benefit the asparagus. Let every one provide for themselves a bed of this healthy vegetable, and they will never do without again.

Gooseberries. — Now-a-days, every body says, "We can't raise gooseberries, and we won't try, they mildew so." Now, as we are not every body, and have never joined the *Won't try* Society, we have no belief in any such doctrine. Some dozen years ago, being on the look out for some of the larger English varieties, a friend informed us that he had bushes of the kinds we desired in his garden, which he had long threatened "to take up and throw in the street, they had become so worthless on account of mildewing. If we would take them, he would dig them for us, and glad to get rid of them so." We took them, and they bore, to the full extent of our wishes, fine, large fruit. This individual saw them when their branches were laden with their rich offering, and inquired where we were so fortunate as to get such valuable bushes? Our reply was, that we had them of friend —, calling him by name, who was going to throw them in the street. He looked marvel-stricken.

But we have been troubled with mildew. For two or three seasons, we lost our entire crop, and then we began to be discouraged. Some papers told us, if grass was allowed to grow around them, it would be a protection. We tried it with a few bushes without benefit. Our best remedy has been, to keep the ground in good condition, by forking in well rotted manure, and keeping it free from weeds; next throwing one or two — according to the size of the bush — handfuls of salt around it; then litter with leaves or coarse grass, to keep up a uniform heat or coolness and moisture. If, in the first season of trying this operation, your berries show signs of mildew, sprinkle the bushes freely, before sunrise, with brine, and repeat it in a week or ten days if the blight does not leave. In this way we are confident any one may raise as fine gooseberries as Lancashire can boast.

Yours truly,

March, 1849.

HORTUS.

For the *New England Farmer*.

THE CULTIVATION OF THE SOIL.

The cultivation of the soil is the most noble employment of human hands and thought. It is the most ancient, the most natural, the most beneficial, the most universal, the most healthy, and the most enduring employment, and, while accompanied with a thousand holy associations, leads the mind "through nature up to nature's God." If the "undevout astronomer is mad," how much more so is the undevout cultivator of the soil! God speaks to man in the bursting vegetation, in the whispering foliage, the ripening fruit, and in the "sere and yellow leaf." His voice is in the wind, that brings nature's plaintive music to the ear, in the rushing waterfall, and in the vivid lightning that rends the mountain top.

"Read nature; nature is a friend to truth;
Nature is Christian, preaches to mankind,
And bids dead matter aid us in our creed."

Men, at the present day, are beginning to have a more just conception of the cultivation of the soil. Agriculture is become elevated. Science, the handmaid of every vocation, has lent her aid to this department of usefulness, and the farmer has risen from a mere laborer to the practical philosopher. To be a proficient in his art, he must study the laws of vegetation, — a field of boundless investigation, — and so apply his knowledge in assisting nature, as to produce the greatest possible results from the soil which he cultivates. There is abundant exercise for his hands,

his head, and his heart; and the great variety of living objects under his care must render his labor the most satisfactory. In a word, agriculture tends to harmoniously develop the whole man.

While the gayety and bustle of a city life may be more congenial and tempting to the young men, as they become tempered by age and wisdom, almost instinctively turn their thoughts to some pleasant rural retreat, which may furnish them an honest competence, and afford shelter from the shocks of a precarious business. Industry is the price of happiness; and spirits broken will revive by labor, and gain their wonted elasticity and strength. As the chaste Cowper exclaims of *labor*, —

"'Tis the primal curse,
But softened into mercy; made the pledge
Of cheerful days and nights without a groan."

To many, a country residence is irksome and insipid; but such persons little know where true happiness is to be found. They are poorly schooled in self-reliance, who pin their happiness to gay and senseless companions, and can find no pleasure in the cultivation of a little plat of ground, in communion with nature, with books, and with a few choice friends. They are the greatest and purest minds who love Nature for her beauties. What is a dreary waste to others, to them is a paradise. Such men as Numa, Cato, Cincinnatus, Bacon, Cowper, and Washington, have blessed Providence that they saw the beauty of his handiwork, and were enabled to read

"The LIVING PAGE, whose every character
Delights and gives us wisdom."

D. W. L.

For the *New England Farmer*.

WINTER PEARS.

MR. EDITOR: I am desirous of procuring a few of the best winter pear-trees. In looking over the catalogues of nurserymen, I find some highly recommended; but, strange to say, I see none of the fruit for sale in our market. How is it? Are winter pears so difficult of cultivation, that they must needs be so rare, or so dear when to be found? The vicinity of Boston furnishes some of the best cultivators; but if you now pass through the market, you can only find a few of the old-fashioned, but substantial *iron* pears. Where are the *Echassery*, the *Monarch*, the *Winter Nelis*, the *St. Germain*, the *Colmar Autumn*, &c.? As few of these pears appear late in the fall, they demand from three cents to a ninepence apiece, and are rather poor at that. Boston market seems to furnish a great and good variety of winter apples; but where are the winter pears that make so imposing a show in the catalogues of nurserymen?

L.

EDITORIAL REMARKS.

The reason that no fine winter pears are in our market, or that they are so very scarce, is because they are difficult to raise. Most of our fine winter pears are foreign and very uncertain; and the cultivator will sooner set his acres with *Baldwin* apples, or some other productive and salable kinds, than set them with fruits that are liable to fail.

Yet cultivators should not be discouraged about raising fine winter pears, for we have some hardy native kinds that will succeed with proper attention; and though they may not be first rate, they are very good, and far surer than foreign kinds.

As greater attention is now given to this subject, improvements will be made. The best will become

generally known, and new and valuable native kinds will be more extensively tried; and by and by we shall have a supply of good pears, not only for winter, we hope, but for spring also.

For the New England Farmer.

DANVERS WINTER SWEET APPLE.

MR. EDITOR: I will give some account of the apple extensively known as the "Danvers Winter Sweeting." This apple originated in the South Parish of Danvers, on the farm now owned by Kendall Osborne, Esq. Daniel Eppes, who was considered "the greatest schoolmaster in New England," and a man of considerable note in his day, occupied this farm, and raised the tree from a seedling, and gave this fine apple its name, by which it was early known, viz., Eppes Sweeting. Mr. Eppes died on this farm in the year 1722. If the original tree is now standing, it is probably 150 years old. It has been much cultivated, in this neighborhood, under different names, such as Eppes Sweeting, Danvers Winter Sweet, Ippotent Sweeting, and Ipswich Sweeting. This apple, by many persons, is frequently confounded with the Green Sweeting, which it much resembles. But the true Danvers Winter Sweeting, when ripe, has a beautiful yellow skin, like an orange. After a diligent search, for many years, to obtain a good baking sweet winter apple, I have as yet found none better than the one above mentioned. The tree is very hardy and vigorous, of rapid growth, and early bearing, and its fruit very good and beautiful.

Yours,

SAMUEL P. FOWLER.

DANVERS, March, 1849.

For the New England Farmer.

FRUIT TREES AND THEIR CULTURE.

MR. EDITOR: In planting fruit trees to form an orchard, some regard should be had to the soil; for it is better to sacrifice a little convenience, in the plan of the orchard, to secure good, loamy soil, than to study convenience only. With respect to soil, it should be of a rich, loamy nature, neither too wet or heavy, nor too light or dry; land which will produce good crops of corn and grass will, in general, be found well adapted to the growth of fruit trees.

If the loam is of sufficient depth and tolerably good, plant without any addition whatever. If it is shallow, the holes must be made, and the soil that is good thrown on one side, to be used again; while the subsoil may be thrown out on the other side, or rejected altogether. These holes ought to be from four to six feet across, according to the size of the trees, and two feet deep; and the good soil may be returned into them, and they may be filled up with the top spit or half spit, taken from all round the hole, and the subsoil should be spread in its place; the holes being made at the distance intended for the trees, which may be close or wide apart, according to the kinds of trees planted, forty feet each way for apples, thirty feet for pears and cherries, twenty feet for peaches, and sixteen feet for plums. It is necessary to examine the roots, to cut off all the bruised ends, and especially to remove any root that may grow downward; cut such roots pretty close to the bottom of the tree. Now, as the roots have been somewhat shortened, it will be necessary to head in the tree to within the last five or six buds of the past season's growth, which will cause the tree to throw out a strong growth of wood.

All planting should be shallow; the nearer the surface the roots grow, the better, so that they are well covered, for they will grow downwards fast enough. Too much care cannot be exercised in planting, as I am well satisfied that seven eighths of the trees that fail to grow, in transplanting, may be traced to deep planting. The tree ought in no case to be placed more than one inch deeper than it stood in the nursery; yet we frequently see trees planted quite up to the inoculation; consequently they do not grow in healthy vigor either in respect to their leaf or flower buds.

In planting, let one person hold the tree upright, while another dashes a pail of water on the roots; then pulverize the earth and scatter it among the roots, by which means every small fibre becomes coated with earth; and as the hole is filled, tread the earth firmly about the tree. If the planting is done in the fall, raise a mound six inches in height about the tree; this will prevent the frost from heaving it; remove it in the spring.

In addition to treading down the earth, there should be three stakes driven into the ground, two feet from the tree, and sloping so as to press the body of the tree; and where these stakes press the tree, they should be tied firmly, placing, however, some straw next the body, that the bark may not be injured by rubbing. These will effectually prevent the roots from being disturbed by the wind, and protect the tree from being injured by the plough.

It is well known to every farmer, that young fruit trees will flourish luxuriantly while the ground is cultivated with various vegetable crops, and that the same tillage and manuring which is required by the latter will prove highly conducive to the growth of the former. In fact, it has been ascertained by experience and observation, that apples, pears, peaches, &c., attain to their highest perfection only when the soil about the roots is kept open and frequently manured.

A FRUIT-GROWER.

EDITORIAL REMARKS.

We prefer planting trees nearer than recommended by our correspondent, so as to have twice the number on the soil; and after they come into bearing, they will produce fruit a long time before interfering. In this way one can have fruit, some fifteen or twenty years, from one hundred, instead of fifty trees; and when they interfere, cut away the poorest.

As to staking trees, it is a useless labor. Place three or four stones, of six or ten pounds' weight each, more or less, as convenient, around the tree, after it is well set, within one or two inches of the trunk; then place some sods between the tree and stones, and press them down. The stones will keep the roots fast, and hold the tree firm, even against the highest winds. This is better than stakes, and far less trouble.

For the New England Farmer.

IMPROVEMENT OF LOW LANDS.

MR. COLE: Having been a mechanic about twenty years, and therefore somewhat inexperienced in agricultural matters, and intending soon to remove to a farm which I have in the town of Lyndboro', N. H., I wish to obtain, through the medium of your paper, some information as to the best method of reclaiming a piece of swamp, or bog meadow land, of about twenty acres; naturally growing the alder, and white or soft maple; mostly now in grass; bearing the usual variety of swamp grasses indigenous to low, marshy situations.

It has a clear muck or decayed vegetable soil of about four or five feet deep, resting upon a hard pan subsoil, and I think capable of being well drained, which, of course, is the first thing to be done. But will that alone bring it into better grass? And what effect will sand have upon it? I wish to bring it into English grass, (herdsgrass and red top,) if it can be done, and should like to see something in the *New England Farmer* on this subject.

Respectfully yours,
I. A. LUCAS.

PROCTORSVILLE, VT., March 10, 1849.

EDITORIAL REMARKS.

In improving low lands, the bushes should be cut even with the ground, and burned or removed. If there are only a few large bushes or small trees, so that the land is generally free from roots, and can be ploughed, it is frequently better to remove the principal roots with the tree, as they can be extracted more conveniently in connection with the tree than they can after the tree is cut down.

Thorough draining is essential to the improvement of wet land. A main channel or drain should be made in the centre or lowest part, sufficiently wide and deep to carry off the water from different parts of the meadow. In some cases, it is necessary to cut a ditch, four or six feet deep in some parts, in order to give a moderate descent from all parts.

Next to the main channel or ditch, marginal drains should be made at or very near the margin of the meadow, to receive the water that oozes out of the high land. These drains should run along in a line with the margin of the meadow, for if the drains run directly from the high land to the main channel, and they are no more than two rods apart, the water will run from the high land, and spread out, between the drains, to a considerable extent on the meadow, and prevent thorough draining.

A sufficient number of cross drains should be made to carry off the water. As to the distance between them, much depends on circumstances. If the descent be small, the land very wet, and the soil retentive of moisture, it may be necessary to make the drains within two or three rods of each other. In some cases, meadows of two or three acres have been well drained merely by making a marginal drain around them; as no stream of water passed through them, and none boiled up in them, they became sufficiently dry when the water was cut off from the high land.

In draining, it is better to cut through the mud into the hard soil, unless the mud is very deep; and in that case deeper draining will be required than where there is a hard subsoil.

After a meadow is drained, it is better to plough it, if it can be done conveniently, as this thoroughly destroys the wild grasses and weeds. But if it is too wet, or there are so many roots that this cannot be done, it may be improved by applying several inches in depth of gravel, sand, or loam, preferring them in the order in which they are named, and adding manure, and harrowing or working it into the gravel or other substance that is applied; and then sow it to grass.

Draining will have a tendency to destroy the wild grasses, and encourage the cultivated kinds that are

sown. Ploughing has a good effect in the same way. The earth applied promotes the growth of cultivated grasses in preference to the wild ones, and the manure has the same effect.

In many cases, meadows may be improved at a small expense, after draining, by applying gravel, &c., and a small quantity of manure, covering up a mass of vegetable substance at the surface, without ploughing, which will decay and form manure. After a few years, the land will become drier, and more firm at the surface, from its settling, and from a grass sward, and the roots of bushes and trees will have decayed, and then it can be further improved by ploughing, applying more high land soil and manure, and sowing down again.

As the soil and location of meadows vary greatly, it is impossible to give definitely the best mode of improvement, without an examination of the premises. These suggestions are general. Thorough draining, and the liberal application of sand or gravel, where the soil is mud, muck, or clay, and a moderate quantity of manure, are all essential to an improvement sufficient to produce large crops of excellent grass.

FRUITS AND FRUIT TREES.

At the agricultural meeting, at the State House, March 13, Hon. Marshall P. Wilder in the chair, the above subject was discussed.

Mr. Wilder opened the discussion. He said, that the culture of fruit trees, or, in modern language, the science of pomology, occupies a wide field. Grain and vegetables may be considered the necessary and substantial blessings of Providence; but he had ever regarded delicious fruits as the overflowings of his bounty. Formerly the cultivation of fine fruits was limited to the gardens of the opulent and the vicinity of good markets. But the increased facilities for information, intercourse, and transportation has spread over the land and awakened an interest in the subject, so that now thousands of trees are planted instead of dozens; and the most humble cottage without its fruit trees and grape vines is considered as an anomaly. In no part of the world is this enterprise crowned with better success than in our own country. Mr. Wilder here alluded to the statement of Mr. Barry, (which is on page 103,) in regard to the demand in England for American fruits, showing that so vast an amount of fruit was necessary for home consumption and for foreign markets that there was no danger of overstocking the market. Several varieties of different species were recommended as worthy of general cultivation.

Hon. J. C. Gray, of Boston, recommended subsoiling or trenching the land before planting trees, and taking up trees with great care, so as not to break the roots. He remarked, that our climate was better for fruit trees than that of England.

Mr. Marshall S. Rice, of Newton, spoke of the great injury to apple-trees by the caterpillar, and he recommended destroying their eggs, which may be seen on the small branches, glistening in the morning

sun. He picks up the windfalls of apples, which prevents the fruit from being wormy. He had kept Russet apples a year and a half in dry sand.

Hon. Mr. Brooks, of Princeton, inquired for the best method of removing large trees. He thought it was a favorable time to destroy caterpillars when they first formed their nests, as it was but little labor.

Colonel Wilder said, that he removed large trees, with success, by digging a trench around them in autumn, leaving a sufficient ball of earth to protect the roots, and remove them when the earth becomes frozen. It is an expensive way.

Hon. Mr. Calhoun, secretary of state, said, that fruit was the farmer's most profitable crop. He thought that this country would supply England with fruit. He said, that in almost every section there were valuable native fruits worthy of attention. In Springfield was the Congress apple, which was an excellent kind.

Mr. Brigham, of Westborough, said, that he had prevented the effects of curculios by placing a hen and chickens under the tree to devour them.

Mr. Cole, of the *New England Farmer*, exhibited fine specimens of the Northern Spy, Ladies' Sweeting, Shawmut, and Red Russet apples, and made some remarks on their qualities, habits, &c., observing, that, in order to keep apples late, the better way was to cultivate late varieties. These kinds were all late and excellent, but not well tested. These fruits were tried at the close of the meeting.

Dr. Bardwell, representative from Whately, recommended, in the raising of fruit trees, to begin right, and select only the largest and most vigorous stocks, as many were small, and unsuitable for setting.

March 21. The discussion of this subject was continued, Mr. Wilder presiding, who opened the meeting with general remarks on soil, its preparation and manures. He said, that all kinds of trees succeeded well on a good mellow loam. Some require a warm soil, others a cold soil; and some will flourish in any soil, and in different sections of the country. The soil should be prepared by draining if the land be wet, and soils generally are improved by subsoiling and trenching. Much depends on appropriate manures. In some cases, specific manures are necessary. By the analyses of the ashes of various trees it was shown what manures are required for each species. Lime and potash are necessary for the apple, and potash and bone-dust for the pear.

Mr. Bartlett, of the *Boston Cultivator*, made some remarks on the appropriate manures. He said, that new lands furnished proper food for trees, but in the process of time the orchard fails, the food is taken up in the production of trees and fruit, and the soil becomes exhausted. The leaves are blown away, the fruit carried off, and the pomace wasted. Specific manures must be applied to renovate the soil. Kirtland says, that a tree requires specific food as well as an animal.

Mr. Rice, of Newton, said, that where cows ran in a pasture and devoured the fallen apples, the fruit was not wormy; but worms were very destructive to apples in orchards where fruits remain under the

trees. He said that there was a great profit in grafting our old trees of worthless fruit. He puts litter around newly set trees, and stones on it to support the tree, but uses no stakes. He had applied urine around peach-trees for the yellows, and he thought it had a favorable effect. Mr. Rice said, that his peach buds were killed, excepting a few trees on the back side of the barn.

Major Benjamin Wheeler, of Framingham, said, that his soil was not well adapted to raising peaches. His soil was low; the buds were killed about three years in four. On high lands, in that town, peaches succeeded well. One man said, that he had not failed of a good crop for thirty years. He thought, that the buds were killed by severe cold, not by sudden changes from warm to cold weather. In low land, the cold weather is more severe. He had prevented the operations of worms in apple-trees, by washing the trees in a solution of potash, about strong enough to bear up an egg. Some will not set trees, as they say that they are too old. Others think there will be a superabundance of fruit; and yet not one farmer in four has a good orchard: the demand for good fruit is increasing; and nearly half the apples in our market are from the state of New York.

Col. Wilder thought, that extreme cold weather, and not sudden changes, caused the destruction of fruit buds.

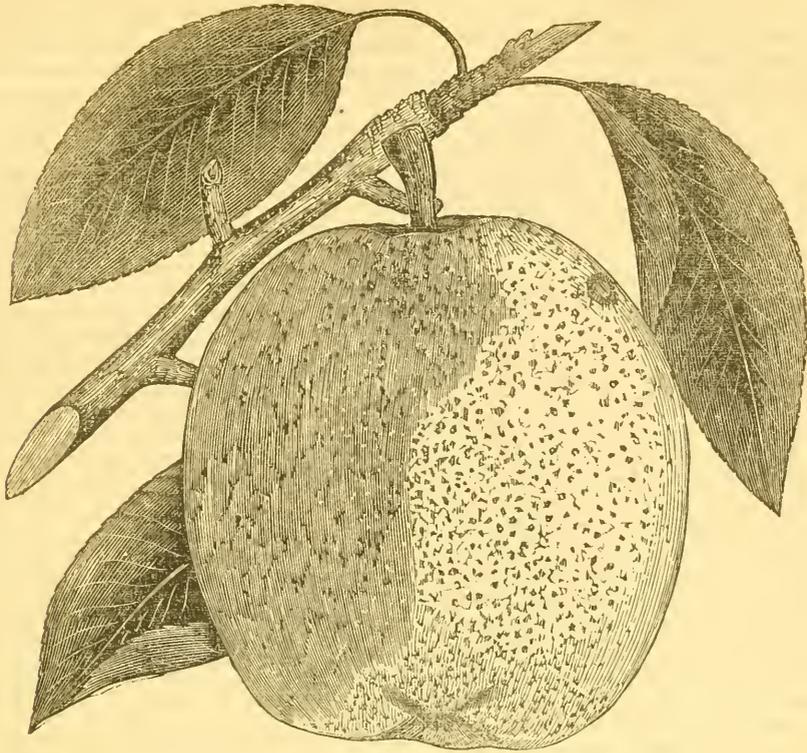
Mr. Buckminster, of the *Ploughman*, said, that trees should be taken up very carefully, so as not to break the roots. Many persons are apt to set too deep. The roots should be near the surface, and no deeper than they were in the nursery. Some litter should be laid around the tree, to make the soil light and moist. This, with some stones laid on it, will support the tree, and no stakes will be necessary. Then the trees will need no hoeing, and but little watering. Muck is a good manure for trees.

Samuel Walker, Esq., of Roxbury, said, that he would dispense with all manures, rather than with the preparation of the soil. Trenching is good, and a tree will grow in a good soil without special manures: these may be useful after a while. Trees should be adapted to the soil; and it is important to get the best varieties. The apple is a noble fruit, and of more importance than other finer kinds. The amateur may have his hundreds of kinds, but the cultivator for the market should have but few. He recommended the Rhode Island Greening as the best, the Gravenstein next, and then the Baldwin, which were sufficient for the market.

Hon. Mr. Russell, of Princeton, presented Russet apples, of fine condition, of 1847. His mode of keeping is as follows: When he gathers his apples, he puts them into barrels, and places them in a cold place, in a shed, or somewhere under cover, till cold weather, and then puts them in a cool cellar.

At the close of the meeting, Mr. Cole presented for trial fine specimens of cranberries, from Mr. S. P. Fowler, of Danvers, lately picked, which were raised and preserved as detailed on the twenty-second page of this volume.

The same subject was continued, a report on which will appear in our next number.



EASTER BEURRE PEAR.

Size, rather large; form, roundish-ovate, often varying to almost roundish-oval, like the above representation; color, dark-yellowish green, with a brown cheek full in the sun, and specks and patches of russet; stem, short, stout, in a small, abrupt cavity; calyx, small, in a shallow, plaited basin; flesh, white, fine texture, tender, melting, of a sweet, luscious flavor. In use from December to May. It is a good grower, and generally bears well and early.

When grown to perfection, and well ripened, by good management, the Easter Beurre is among the best very late pears; but like many other delicious foreign fruits, it is very uncertain in New England, and is adapted to the garden, rather than to orchard culture. It will succeed only in warm locations, and some cultivators, with a favorable situation, have abandoned it on account of its uncertainty, while others prefer it to all other late winter and spring pears. It is in use when pears are very scarce, as we have but very few kinds at this season. The Easter Beurre succeeds best on the quince stock: this is the general opinion of cultivators; but Mr. Pond says, that he is more successful in using the pear stock.

Our engraving is made from a fine specimen in a lot presented by Samuel Pond, Esq., of Cambridgeport, who, in a fine location, and with skilful management, succeeds well with this variety.

For the New England Farmer.

MAKING HOTBEDS.

MR. EDITOR: In making hotbeds, most people follow the rules of the English gardeners, and do not make any allowance for climate. The article in the Farmer, March 17, states the quantity of manure at three feet for February, and one and a half feet for the last of March or first of April. I have used hotbeds ever since 1831, and have never used half that quantity, and have had more trouble with heat than with cold. I make my bed as follows:—

I do not want the whole depth of the hole more than eighteen inches from the glass to the bottom, which is filled up as follows: viz., two inches at the bottom, with dry leaves or meadow hay; four inches of good green horse manure; six inches of good rich mellow soil; and that leaves six inches for the plants to grow in at first; and the settling of the bed soon makes more room. If the soil is dry enough for sowing, I never wait for heat, but put the seed in directly, and in three or four days the plants will begin to come up. A bed made in this way will force the plants full fast enough, and will not require one half so much water as one made with two or three feet of manure. And the last week in March or the first of April I consider early enough for tomato, cabbage, lettuce, cress, pepper, &c., in this climate. If there are any seeds of weeds in the soil, they will get a start of the plants, if sowing be delayed after the bed is prepared.

B. F. CUTTER.

PELHAM, N. H., March, 1849.

PLASTER, OR GYPSUM.

Many cultivators have expressed great surprise that gypsum, or plaster of Paris, should operate favorably as a manure on a piece of land for a number of years, and then cease to have any effect. But we do not regard this as at all surprising, for in the first place we must consider that the soil is deficient in the elements of which plaster is composed, else it would not operate as a fertilizer, or a stimulant; and by applying it for several years this deficiency is supplied, and further applications cease to produce any beneficial effect.

As plaster is composed of sulphate of lime, or a combination of sulphur and lime, these ingredients may be taken up into the plants, as they constitute a part of most plants, though a small part; and this may account for a small quantity of plaster producing so powerful effects in the production of crops. For although the amount of lime and sulphur is generally very small in plants, yet that small amount is absolutely necessary in their composition.

When the soil has become saturated, or sufficiently supplied with plaster, and no further applications are made for several years, the plaster may become used up, in some measure, either by cultivated crops, or the spontaneous production of weeds, grasses, bushes, &c.; and then a new application may again prove to be beneficial. Or plaster may have a valuable effect on the soil, in preparing it to supply food for plants, and after a few years this favorable effect may cease until a further chemical change takes place in the soil, which may, after a while, become a slow process, so that years will pass away before plaster will again act as a manure.

We have in nature a great many analogous cases. Sand may be added to a clayey soil until there is sand enough, and it ceases to be useful; but after a long course of cropping with corn, herdsgrass, red-top, and small grains, a large amount of silex or sand is taken up in solution, and a new addition of sand would be beneficial. An animal may be in great want of salt, or some other condiment, and it may be given until it is no longer useful. After a while, the condition of the animal may require another supply.

These remarks may explain some of the facts offered in the following interesting article from the Dollar Newspaper.

GYPSUM AND CLOVER. — For the last seventeen years, my attention has, to some extent, been directed to the peculiarity of the different soils of this and the adjoining counties of Maryland. Much attention has been bestowed on the various modes of improving the soil, more particularly by the use of clover and plaster of Paris. This having been the favorite system for the last twenty years, and indeed long before that time, no other course was considered at all reasonable. I well recollect of seeing in nearly every part of our country the most luxuriant fields of clover, rising at least two feet or more from the surface of the land, therefore furnishing the soil with a most splendid covering, sufficient, when ploughed under, to enrich the soil, to make it produce the finest growth of cotton, corn, wheat, or tobacco. Since the time first alluded to, there has been a very general complaint that our lands were not half so

valuable as they were first supposed to be, in consequence of our fields not possessing the capacity of yielding their former crops of clover. One man asks another why this should be so. What has done all this mischief? And, strange to say, no two individuals can agree. Well, now, as we have neither the Ural Mountains of Russia nor the mountains of New Mexico or California to resort to to enrich our soils, let us be content to use such means as may be within our power to effect this most desirable object.

It is a fact not to be questioned, that land which once produced fine crops of clover, when accompanied with gypsum or plaster, will now scarcely produce any; at least, will not when clover and plaster have been regularly used for seven or eight years. Now, my principal object is to learn, why is all this? Is the land tired of cultivation? Or is it that the gypsum is adulterated, and its properties useless to the application of clover? I think not. I believe too much has been infused into the earth. I cannot suppose the clover can in any way be detrimental to the soil. It must be the bad effects of the plaster; for who doubts for a moment that its effects are various, and there are principles which have been discovered, by which its influence has been traced? Some salutary correction is needed; but what that remedy is, I am at a loss to conjecture. He alone who is familiar with chemistry, and can analyze the soil, can point out the constituents necessary to correct the evil. There is, to my mind, a most mysterious agency in plaster as well as lime, and he who can explain it is a benefactor. Can its advantages or disadvantages be owing to the chemical character of the soil, or the kind and quality of vegetation thereon produced? We not unfrequently complain that the land is worthless, it is exhausted; and verily we cannot explain what we mean. For myself, I plead ignorance. I will state, however, a few circumstances which have come under my personal observation. I discontinued the use of gypsum on my clover land for nearly five years, believing, when I again commenced its use, that the best results would accompany the experiment; and so they turned out. My most sanguine expectations have been more than realized.

I sowed, this season, (1848,) forty bushels of clover seed, and the most competent judges have affirmed that it has never fallen to their lot to witness a more luxuriant crop of young clover, the greater part of which was bedded, which is very unusual. The entire field was well plastered, and when a row happened to escape the action of the plaster, the clover was small and puny. Now, I will venture a prediction, should plaster be regularly applied, say for the next five years, that this very land will not produce clover sufficient to make even good grazing. It must now be admitted that I have opened a wide and extended field of inquiry, on a subject which is entitled to at least some consideration from an intelligent agricultural community, without attempting to explain the properties of the mineral mostly used, or without any attempt at analysis of the different soils we have to cultivate, for the best reason — my experience in a theoretical point of view does not justify it. What I have obtained has been from long experience, certainly not from theory. What we require is science, fully developed through chemistry; and not till then can the occupation of the farmer rise to that elevated position so necessary for him to occupy, and which it should be his object to acquire.

THE GRAPE.

At the Farmers' Club, which meets monthly, in the city of New York, for the purpose of discussing various agricultural subjects, Dr. Underhill made the

following remarks, which are entitled to particular attention, as they are from a very skilful cultivator of extensive experience. He has at Croton Point, on the North River, a vineyard of twenty acres under successful cultivation, from which we have occasionally had some of the finest and largest grapes. The Isabella is the principal kind cultivated. The Catawba is the next in importance.

FARMERS' CLUB. — Dr. Underhill said, "I am asked to speak on the grape question; but I cannot in the space of an hour give a proper view of it. I will, therefore, but sketch. The grape is immortalized in history, in poetry, in Scripture, in painting. The rich architecture of antiquity, the frescoes, vases, and other beautiful works, are entwined with the vine and its precious clusters. The tendrils of the grape have enraptured the heart of man in every country where it grows. The grape is so delicious, so salutary, — diluting the blood, and causing it to flow easily through the veins, — and there is nothing equal to it for old age. In this country its use will grow, will increase, until its consumption will be prodigious. It will supplant some of the articles which destroy men, and establish the cheerful body in place of the bloated, diseased systems of intemperance. No disease of the liver — no dyspepsia — are found among those who freely eat the grape. This remarkable fact is stated in reference to the vineyard portions of France. Persons who are sickly, in grape countries, are made well when grapes are ripe. And this result is familiarly called the *grape cure*. In this country our attention has been long misdirected. We have spent years and sums of money on imported vines. We have proved the fallacy of all this. The foreign grape-vine will not flourish in our open air. It only thrives under glass. I suppose that millions of dollars have been lost on these foreign vines during the past century. Climate has settled that question. Our extremes of heat and cold are incompatible with the character of the foreign vine. Time will show that our native stock of grapes will, by cultivation, gradually improve in quality. It is with them as with animals; a great amelioration follows care and proper knowledge. I spent some thousands of dollars on the foreign grape-vines without success. We want to supply our twenty millions of people with fine grapes. In 1830, France produced fourteen thousand millions pounds of grapes; of which were consumed on the tables, and exported in the form of raisins, &c., two thousand millions of pounds. Are you afraid that our market will be overstocked from the few vineyards which we have?"

"There are many books on the culture of the vine, but their doctrines are generally not at all applicable to our country. Europe has the moisture from the ocean — we have dry winds blowing over our continent. More heat penetrates our ground in one of our hot, bright days, than England has in a week. The books of Europe are an honor and an ornament to the world; but they lead us from the truth frequently; such is the great difference of the climates of Europe and America. We must here select our best native grapes; there are many; of which we have now proved the Isabella and Catawba to be excellent. Plant the vines deep, on dry soil, where there are no springs of water; slaty, calcareous, or other soils; but the drier they are, the better for the grape. A soil of brick clay will not do. The roots must be deep, to avoid our severe droughts. Plough the ground exceedingly deep before you plant your vineyard. I have found that, in seven years' culture, the savage musk of my Isabella has vanished. Its character is greatly changed for the better. Its pulp is almost gone; its seeds are less."

SELLING CORN ON THE COB.

We have noticed, for the last few years, a custom, coming into general use, of selling corn on the cob. During the late fall, we witnessed many deliveries in our city of the kind. This custom we hold to be "more honored in the breach than the observance," and, therefore, should be reformed. The cost of transportation, a costly item of expense, is thereby at least doubled: the merchant purchaser gets the cobs for nothing, while the farmer unnecessarily imposes a heavy tax for conveyance upon himself. Setting aside this view of the subject, there are others of vast moment to every farmer who looks upon economy as a virtue. The cob of the corn crushed into meal, or broken into suitably sized pieces, and cooked, is worth, as a matter of nutriment, two fifths as much as grain as food for milch-cows or working oxen, while it improves the quality of the manure made by the beasts fed upon it, imparting to it, besides a very sensible portion of nitrogenous matter, other certain mineral salts, which would be otherwise lost.

To the man who may not have paid attention to the study of economy, this may appear a small matter; but if he will reflect, that every time he may sell two hundred bushels of corn in the ears, he pays the transportation upon one hundred bushels more than he receives any consideration for — that he gives away one hundred bushels of excellent food — that he removes that quantity of manure from his farm, and to that extent impoverishes his land, he will see at once that he is warring against his interest, and that justice to himself and family requires that he should no longer pursue a practice at once so ruinous and impolitic. — *American Farmer*.

REMARKS BY THE EDITOR OF THE NEW ENGLAND FARMER.

The cob of corn contains nutriment for animals, such as cattle, horses, &c., which are accustomed to coarse herbage, and whose powers of digestion are sufficient to decompose browse, even tolerably large twigs. And though it seems to be a well established fact that cobs are nutritious, yet it is not settled as to the amount of nutriment they contain.

The experiment by distillation shows the amount of alcohol produced from cobs, compared with that of the same quantity of corn; but whether the cobs contain the same proportion of nutriment that can be extracted in its passage through the animal, is not well settled; nor can it be, excepting by numerous and varied experiments. Besides the advantage in grinding the cob with corn, on account of nutriment, the cob is useful in adding bulk to food that is too solid or concentrated.

AGE OF SHEEP DETERIORATES THEIR WOOL.

It has been observed, by the most experienced wool-growers, that the older the sheep the less fine the wool. The wool is said to be of the best quality when the sheep is from two to five years of age: after that it deteriorates.

Mr. Blanchard, of New York, states that he has known flocks that yielded wool that sorted number one when young, when older drop down to number two or three.

Those who wish to grow the first grade of wool should keep young sheep. Some go so far as not to use a buck after he is four years old.

Domestic Department.

A MOTHER'S INFLUENCE. — For myself, I am sure that a different mother would have made me a different man. When a boy, I was too much like the self-willed, excitable Clarence; but the tenderness with which my mother always treated me, and the unimpassioned but earnest manner in which she reproved and corrected my faults, subdued my unruly temper. When I became restless or impatient, she always had a book to read to me, or a story to tell, or had some device to save me from myself. My father was neither harsh nor indulgent towards me; I cherish his memory with respect and love. But I have different feelings when I think of my mother. I often feel, even now, as if she were near me — as if her cheek were laid to mine. My father would place his hand upon my head, caressingly, but my mother would lay her cheek against mine. I did not expect my father to do more — I do not know that I would have loved him better had he done more; for him it was a natural expression of affection. But no act is too tender for a mother. Her kiss upon my cheek, her warm embrace, are all felt now, and the older I grow, the more holy seem the influences that surrounded me in childhood. — *"The Mother,"* by T. S. Arthur.

TO MAKE GOOD COFFEE. — First procure the best coffee in the market; wash it very clean, and roast it to the color of a golden brown, but not a deeper shade, by any means. Then take the whites of three eggs to each pound of coffee, mix very carefully with the coffee while warm, and immediately transfer to earthen vessels, tying them over with bladders to render them air tight. Take from these vessels sufficient coffee for one making only at a time; grind it, place it in a fine muslin bag, suspend it about midway in the pot, turn on the boiling water, and put on the cover to prevent the escape of steam. By this mode the coffee will be very strong, but it is best to reduce it by the addition of boiling-hot milk, when it will form a most delicious beverage, very different, indeed, from that which is produced by boiling the ground coffee in water. And to be convinced of the fact, that, by the above method, which is simply *infusion*, all the virtues of the coffee may be obtained, it is only to take the dregs left in the bag, and boil them in water for a considerable time; the result will be, a black, bitter, nauseous, feverish, woody extract, without a trace of the fine flavor of coffee, and answering to the name by which it was known on its first introduction into use, according to the account published in the eighth volume of the "Harleian Miscellany," namely, "the devil's black broth"! The making of tea is by infusion, not *decoction*. Who ever thinks of boiling tea? — *Farmer's Cabinet*.

GRIDDLE CAKES OF UNBOLTED WHEAT. — A quart of unbolted wheat and a teaspoonful of salt; wet it up with water, or sweet milk, in which is dissolved a teaspoonful of saleratus; add three spoonfuls of molasses. Some raise this with yeast, and leave out the saleratus. *Sour* milk and saleratus are not as good for unbolted as for fine flour.

These are better and more healthful cakes than buckwheat. — *Prairie Farmer*.

TO TAKE MILDEW OUT OF LINEN. — Rub it well with soap, then scrape some fine chalk, rub that also

on the linen, lay it on the grass, and, as it dries, wet it a little, and the mildew will come out in thrice doing.

Boys' Department.

PREPARE SEEDS. — As the season for planting is approaching, boys should furnish themselves with seeds of melons, cucumbers, early corn, flowers, &c. For each should have a little patch of land for his own, on which he should raise a variety of vegetables and some beautiful flowers.

A boy who has a small plot, cultivated by himself, will take great pleasure in keeping it in fine condition, and in watching the changing plants from the time they start from the ground until they come to full perfection. Every stage of growth will afford something of novelty and interest, and when the cucumbers, melons, early potatoes, beans, corn, &c., are fit for use, how pleased will be the industrious boy who sees his friends partake of the products of his own hands!

TAKING CARE OF THE PENCE. — One of the hardest lessons for many of our young men to learn is that trite and sterling doctrine of Poor Richard — "Take care of the pence, and the pounds will take care of themselves." But hard and distasteful as it is, we must learn and practise the maxim, or take the still harder alternative of poverty and want.

We have no inclination to teach any of our readers a lesson in miserly meanness and littleness. The miserable Muckrake, who consecrates his energies to the saving of the shreds, and fragments, and sweepings that lie in his path as an ultimate object, is quite as pitiable a being as the most prodigal spendthrift. What we desire is, to save the thoughtless and wasteful from future embarrassment and trouble by putting him upon a course of economy and care-taking in his ordinary expenditures. This is all that is necessary, and all we wish.

Hundreds of young men, some of whom may read this paragraph, might this day have been in possession of a snug little capital, if they had simply dispensed with superfluous indulgences during the time they have been engaged in business. It would have cost no sacrifice of generous feeling, or of respectability of character; and besides the saving of money, it would have been attended with the acquisition of a habit of minute economy, or precise attention to the small details of daily business, which is itself worth more than money; which is in truth the most productive kind of capital.

In this country, and as business is here managed, a little capital gives a young man great advantage, especially if, along with it, he possesses superior business talents and habits. And the fact that he has saved from a small income a snug little sum in the course of a few years, is itself pretty good evidence that he has the right habits and abilities to succeed well; and no introduction or letters of recommendation can speak so loudly in his favor. At the same time, the buoyancy of mind and spirits which this advantage inspires in the young adventurer himself is often a material help to him in his future undertakings. In every respect, he appears in favorable contrast to those other young men, who, though placed in circumstances equally favorable, have acquired no property, contracted bad habits, and feel jaded and discouraged by their unfruitful toil.

It has a great and happy effect upon one's own mind and energy to feel that a beginning is made—that a foundation is laid to build upon; and, if for no other reason, for this every young man should look well to see what becomes of his first earnings. It is comparatively easy to add to a stock, however small; less easy to think of beginning one.

We repeat our advice, then, old and oft repeated as it has been. Take care of the pennies, the first earned pennies of youthful endeavor, and the pounds of after life will take care of themselves. — *Dry Goods Reporter*.

Health.

For the New England Farmer.

TO CURE A COLD.—The present winter has been characterized by the severity of colds, with which almost every body has been afflicted. We ourselves have had one, the most obstinate we ever had, confining us to the house for two weeks, and by an almost incessant cough forbidding us to sleep by day or night. We tried various remedies, until we wore them out without realizing any desirable effect, and at last heard of and tried the following, to wit: Take thoroughwort, hoarhound, and pennyroyal, of each a good handful, and boil them in just water enough to extract the strength; then strain off the liquor, and add an equal quantity of molasses, and boil until it forms a candy. Eat freely of this every time an inclination to cough is felt, and your cough will soon leave you. After using this candy for half a day, we had a night of good sleep, and found our appetite much improved next morning.

AMPUTATION WITHOUT PAIN.—The Philadelphia Ledger makes the following suggestion:—

Two cases have recently occurred in Schuylkill county, Pennsylvania, in which limbs have been accidentally cut by a swift moving circular saw. In both instances the persons were cleaning out the refuse that accumulates in the dark chamber under the work-bench in which the saw is set. One of them had three deep slips cut between different fingers, up into the hand, one cut after another. The other had all the fingers of one hand cut off; some half way, and others less. In both cases, the persons were not aware of their loss till the sight of blood attracted their attention on coming to the light—so free from pain was the operation. This suggests the idea of employing an instrument of this kind for similar purposes in surgery. A very light and portable instrument could easily be made to receive its rapid circular movement by hand; and the freedom from pain ought to commend it to speedy use. It would have the further advantage of making the section with greater precision than can be attained with the ordinary surgical knife and handsaw; and it would not require the same firmness of nerve either in the patient or the operator.

Mechanics' Department, Arts, &c.

THE WATER HAMMER.—Our unscientific readers may be interested in an explanation of the water hammer. By opening a stop-cock or fountain in a tube, as that of one of the great mains of the Long Pond water, a current is established through the tube, the velocity of which is to that of the jet at the orifice inversely as the square of the diameter of the pipe to the square of the diameter of the orifice.

Thus, if the orifice at the fountain be three inches and the main thirty inches in diameter, and the velocity of the jet be seventy-five feet per second, a current of nine inches per second will be established in the main. If the jet be six inches in diameter, the current in the main will be thirty-six inches, or three feet, per second. Now, the momentum, or amount of motion, is proportional to the amount of velocity multiplied into the weight of the water in motion. The water in four miles and a half of thirty inch pipe would be something over four thousand tons, if our ciphering is correct. The motion or blow which an instantaneous stopping of a three inch fountain destroys, is that of a hammer of four thousand tons moving at the rate of nine inches a second, or half a mile in an hour, which is just the same blow as that of a hammer of forty tons, moving with the velocity of the jet, or seventy-five feet per second. And in a water pipe this blow takes effect in all directions, the weakest point, if any thing, yielding. When we consider the force of a hammer weighing forty tons, — eight thousand pounds, — swung with the lightning velocity of seventy-five feet per second, we shall see that the strength either of the gate boxes or the pipes is nothing to it, and that their only safety lies in the impossibility of shutting a stop-cock instantaneously. As time is employed in destroying the motion, the force of the blow is divided. — *Farmer and Mechanic*.

NEW PRINCIPLE IN THE SAW MILL.—Horace Hecock, writing to the Jeffersonian, says he has invented a method of sawing, "calculated, as a general thing, to save the time and trouble of gigging back the carriage, as the saw, after cutting through, is instantly reversed, together with the feeding apparatus, setting the board at the same time to the required thickness, and returns cutting through the log each way alternately, without stopping, until the log is finished." The mill, however, is built with apparatus for gigging back the carriage, for convenience in cutting through the first time, for scantling, &c. — *N. Y. Farmer*.

IMPROVED SHOE-PEGGING MACHINE.—This is an invention described in the American Cabinet, the merits of which consist in holding the shoe on rocking, turning, or moving stocks, in the proper position to be pegged together with the simultaneous intermittent movement of the carriage and stock, by means of a cogged and grooved guide pattern, and traversing guide shaft and pinion, for the purpose of arranging the pegs at uniform distances apart, in lines round the sole of the shoe, and parallel to its edges.

Also, the employment of the turning tube, for the purpose of receiving the charger, and then placing them over the hole punctured in the sole of the shoe by the awl, in the proper position to be driven therein, combines the manner of supplying the turning tube with pegs from the charger at suitable intervals, by means of a vibrating driver.

And lastly, the employment of a spiral chamber or groove to contain the pegs and supply them to the charger, one at a time, by the simultaneous intermittent action of the traversing pusher, and ratchet wheel, or otherwise in combination with the charger driver, turning tube, awl, and punch, arranged and operated in the manner and for the purpose described. — *Farmer and Mechanic*.

MACHINE FOR CARVING.—Mr. Isaac M. Singer, of Pittsburgh, Pennsylvania, has invented a very ingenious machine for carving block letters for signs,

wooden type, door knobs, and every other species of fancy carving. It is said that the machine will do the work of ten men, and can be tended by a girl. — *American Artisan*.

Gutta Percha has been used with great success in making hats. Hats that are made with this composition are light and delicate.

HORTICULTURE.

BY MRS. LYDIA H. SIGOURNEY.

If the admiration of the beautiful things of nature has a tendency to soften and refine the character, the culture of them has a still more powerful and abiding influence. It takes the form of an affection. The seed which we have nursed, the tree of our planting, under whose shade we sit with delight, are to us as living, loving friends. In proportion to the care we have bestowed on them is the warmth of our regard. They are also gentle and persuasive teachers of His goodness who causeth the sun to shine and the dew to distil; who forgets not the tender buried vine amid the snows and ice of winter, but bringeth forth the root, long hidden from the eye of man, into vernal splendor or autumnal fruitage.

The lessons learned among the works of nature are of peculiar value in the present age. The restlessness and din of the railroad principles, which pervade its operations, and the spirit of accumulation which threatens to corrode every generous sensibility, are modified by the sweet friendship of the quiet plants. The toil, the hurry, the speculation, the sudden reverse which mark our own times, beyond any that have preceded them, render it particularly salutary for us to heed the admonition of our Savior, and take instruction from the lilies of the field, those peaceful denizens of the bounty of heaven.

Horticulture has been pronounced, by medical men, as salutary to health, and to cheerfulness of spirits; and it would seem that this theory might be sustained, by the placid and happy countenances of those who use it as a relaxation from the excitement of business, or the exhaustion of study. And if he who devotes his leisure to the culture of the works of nature benefits himself, he who beautifies a garden for the eye of the community is surely a public benefactor. He instills into the bosom of the man of the world, panting with the gold fever, gentle thoughts, which do good like a medicine. He cheers the desponding invalid, and makes the eye of the child brighten with a more intense happiness. He furnishes pure aliment for that taste which refines character and multiplies simple pleasures. To those who earn their substance by laboring on his grounds, he stands in the light of a benefactor. The kind of industry which he promotes is favorable to simplicity and virtue. With one of the sweetest poets of our mother land, we may say, —

"Praise to the sturdy spade,
And patient plough, and shepherd's simple crook;
And let the light mechanic's tool be hailed
With honor, which, encasing, by the power
Of long companionship, the laborer's hand,
Cut off that hand, with all its world of nerves,
From a too busy commerce with the heart."

Lady's Book.

THE GADFLY IN CATTLE—INQUIRY.

I have a cow which I value highly, and she is troubled with grubs in her back, which I suppose are caused by the gadfly depositing its eggs, in the summer, in the animal's back; and they are now

undergoing a change preparatory to their exit and transformation into a fly, to torment anew the cattle. In the present state, they seem to create great uneasiness, the animal constantly licking herself; and although well fed and sheltered, she falls away in flesh, which I have no doubt is caused wholly by the irritation of these animals.

Now, what I want to know is, what is the remedy? Can any thing be applied which will destroy these grubs, and do no injury to the cow?

Feb. 18.

G. R. P.

REMARKS. — These grubs are undoubtedly the larvæ of the gadfly, (*astrus bovis*.) This fly, which somewhat resembles a small humblebee, deposits its eggs in the skin of the backs of cattle during the latter part of summer; and these worms, or grubs, live during winter in or under the skin, causing bunches or lumps easily felt by the hand outside, and, when at all numerous, injuring the health and growth of the animal. Each of these bunches will be found to have a small opening, to admit air for the insect, or to allow matter to escape. We know of no way to destroy these vermin but to extract them by hand, squeezing them with the thumb and finger, and aiding their exit with the point of a knife. When the orifice is well open, a drop of turpentine will do the work more easily. In no case should they be allowed to remain long after their presence is discovered. — *Editor of Ohio Cultivator.*

POTATOES.

We copy below, from that valuable paper, the Dollar Newspaper, published in Philadelphia, an excellent article on the general subject of cultivation, and it accords with the views of many on the potato rot; but although the state of the weather has great influence in regard to this disease, and so has manure, or the want of manure, yet we do not regard these as the original or principal cause. For they have operated, as they now do, for a long period, without potatoes being affected as they have been by the late malady.

As far as I can, I will give the result of my observations on the effect of manure in the culture of potatoes, in the hope of leading some one to the analytical investigation of the difficulty. Having made some experiments with manures, all the difference I could observe between those with rotted manure, those with unrotted, and those without any manure, was, that those manured were much larger and more numerous than those not manured. They were planted at different times in March and April. They were tended with the utmost care, and grew as finely as I ever saw, promising a fine yield, until about the 25th of July. At that time, for several days, heavy rains and hot sunshine alternated, producing a state of fermentation in the root, which ended in the destruction of half the crop. Observation warrants me in saying that the rain or hot weather was the *inducing cause* of the rot, for it ceased with clear, cool weather.

The real *cause* was the lack of some agent necessary to its full formation, and which would have rendered it proof against the exciting cause. Says one, "Did you not manure some of them?" So I did; but did the manure contain all that was necessary to the growth of the potato? If it contained enough for ordinary weather, did it contain enough to be in proportion after the immense fall of rain? For it must be remembered that oxygen and hydrogen, the component parts of water, enter into vegetables by first dissolving other agents, and then,

if the ground is not rich in proportion, some will enter more largely than others.

In order, if possible, to illustrate, I will note a case which may be observed by every farmer. Farmers sometimes thresh their wheat in the field, selecting a poor spot, that will hardly yield five bushels to the acre. The straw is allowed to lie here and rot, or is ploughed under, to enrich the worn-out soil. In course of time, another sowing of wheat takes place; and when spring comes, the farmer congratulates himself upon having in the field at least one spot of good wheat. Harvest comes, and the hands cut up to the place, but they find the straw all tumbled down, and the heads not filled. "O," says one, "this ground is entirely too rich."

Organic chemistry will tell you that the ground was only half rich enough. The straw contained only those agents necessary to reproduce straw, and from the aptitude of the rotting straw to hold and appropriate the component parts of water, the stalk shoots up without strength to support its overgrown weight. If the ground had contained the ingredients of the grain, and the salts of lime, &c., to strengthen the stalk, there could have been no failure. Plant this spot in corn, and the long ears in autumn will tell that the ground possessed all that was necessary for its perfect growth. I have seen these spots fail in one grain and succeed in another; but it was a wonder, until organic chemistry explained the mystery. Many a time I have wondered why a stalk of corn would not grow in a pile of manure, having seen them come up there early in the spring. It ceases to be a wonder when we learn that the pile is only rich in reference to ammonia, &c., and poor in regard to several agents. The ground can never be too rich, if it holds all the agents of growth in just proportion: for the plant will apply what is demanded for its support, and leave the balance for another time.

I think the views here taken are in strict accordance with science. Then we should learn the importance of knowing what the soil has, what is wanting, what manures have, and then we can apply them so as to render the required assistance. Some may wish to know why straw rotted in the barn-yard, where stock run over it, makes better manure than that rotted in the field. Simply because the deposits of the cattle supply what is lacking in the field. When quite small I remember seeing a large quantity of lime applied to a field, as I was told, "to make it rich." The trouble was not repaid, and the system of liming was abandoned. The persons who did it cannot yet tell why it was that no good resulted. Science steps in, and tells the man of careful observation, that the ground had lime enough, and that it wanted something else. But more of this at another time, for long articles are likely to be neglected.

FRANKFORD, KY., Feb. 1849.

J. L.

HOW TO PLANT CHESTNUTS.

The plan for raising the chestnut is thus: The nuts must not be suffered to become stark dry. Plant them in the spring of the year. The first winter, protect them from the frost, or they are apt to be killed by freezing. The next spring transplant in the following manner: Select a dry soil, dig a hole eighteen inches deep, three feet wide; fill it up with small, loose stones and clay to within six inches of the surface; set your trees on that; take care of it, and it will grow well, and in four years bear nuts.

The chestnut should be more attended to than it is. It is valuable food, and very nourishing. In Italy the chestnuts grow to the size of small apples, and are used for food by the peasantry.

WOOL IN THE WEST.

The cheapness of lands in the west, and the small amount of labor required in keeping sheep through the winter, will cause a large production of wool; and the advantages of getting it to market at a small expense, when its value, and not its bulk, is considered, compared with heavy articles, such as grain, flour, &c., and a cheap and convenient mode of making a sale to eastern manufacturers, at fair prices and at a small commission, through the medium of Mr. Peters's Wool Depot, at Buffalo, give additional encouragement to this branch of agriculture in that vast and fertile region. We copy the following item from the Racine (Wis.) Whig.

Wool.—The people of the west are beginning to furnish their quota of this valuable commodity. It is not long since little or no wool was grown in this section of the country. We have now as extensive flocks of sheep in Wisconsin, perhaps, as any other state can boast. Messrs. Norton & Co., of this city, have a fine flock of some twenty-five thousand sheep, which are mostly in this state; some in the northern part of Illinois. This enterprising company will furnish for the market upwards of fifty thousand pounds of wool. This is worth from sixteen to twenty cents per pound, according to the quality. The Pittsburgh Journal of the 26th ult., says there is a good demand for wool, and prices have advanced to twenty and twenty-eight cents per pound for common to full blood.

FACTS ABOUT SWINE.

We have received from Mr. Rood, of Adrian, some facts in regard to the breeding of swine, which are of importance to every farmer. Mr. R. remarked that he had long observed, that pigs from old sows made much heavier hogs than those from young sows. And he related an instance which places the matter in a very striking light. He had two sows of the same breed, one of which was one year old and the other three, the former being out of the latter. Both sows had a litter of pigs on the same night, and as a part of both litters were destroyed, the two litters were put together and nursed by the older sow. The pigs of the young sow were apparently the most promising at first; but they all grew up together, were treated alike and fatted alike, and when they came to be killed, the pigs of the older sow weighed about eighty pounds more than those of the young one.—*Michigan Farmer.*

PERPETUAL ROSES.

Many cultivators of this fine new class of roses "waste its sweetness" by allowing it to carry all its blossoms in the month of June. Now, to have the perpetual rose fully enjoyed, it should not be allowed to bloom at all in the rose season. Roses are so common then that it is not at all prized; while blooming from midsummer to November, it is highly prized by all persons.

The way I pursue to grow it in perfection, is to pinch out, as soon as visible, every blossoming bud that appears at the first crop, say from the middle of May to the middle of June. This reserves all the strength of the plant for the after bloom; and accordingly I have such clusters of roses in July, August, September, and October, as those who have not tried this stopping system can have no idea of. La Reine, Madame Laffay, Comte de Paris, and the Duchess of Sutherland are particularly superb varieties under

this treatment. Indeed, they may be recommended as among the best of the perpetuums.

I have adopted, with excellent results, Mr. Rice's recommendation of giving the roots of well established roses a good soaking of liquid guano, after they have shed their leaves, say middle of October. It greatly promotes their luxuriant growth the next season. — *Horticulturist*.

USES OF THE BLACK CURRANT.

The Black English Currant is represented to have qualities that entitle it to extensive propagation. A kind of wine has been manufactured from it, which is celebrated for its medicinal properties. The Boston Medical Examiner, quoted by Fessenden, said of this wine, "It has all the good properties of the best Port, without any of its heating or constipating effects. We could name several instances, where, in great debility and exhaustion, after protracted and severe fever, and from other causes, nothing else could be thought of or taken with pleasure or advantage, in which this wine proved grateful to the palate, and most friendly to the stomach; in which, indeed, it was the principal means of conducting the patient to health and strength. Its exhibition has been attended with remarkable success in the early stages of cholera and dysentery; and again in the later stages of these diseases, after the symptoms of inflammation or febrile excitement had ceased. It has been strikingly remedial in the low stages of typhoid and bilious fever. We have not room to enumerate many other morbid affections, in which this wine has proved useful. In sore throat, it has, for many years, been considered almost a specific remedy."

These opinions are confirmed by other testimony. Kenrick, in his American Orchardist, says, "From the black currant a jelly is made, of considerable medicinal efficacy; a wine is also made from them, which possesses far superior medicinal virtues to Port wine. The jelly has been highly recommended for disorders of the throat, and as a necessary article in the stores of ships sailing to the East Indies. A liquor is prepared from the black currant, which, Mr. Forsyth states, is possessed of great medicinal efficacy in obstinate coughs, &c. The currants for this purpose are bruised, and, being placed in a jar, whiskey or any other species of alcohol is poured over them; the jar is then covered close for a fortnight; after this, the liquor is strained and bottled."

The jelly from the black currant is further described as being fine for the table, and the wine as of peculiar flavor, which, to those long accustomed to its use, is delectable.

A friend of ours, who has many years made use of this currant in his family, as a remedy for some of the above-named affections, especially for diarrhœa, fully concurs in the foregoing estimate of its value. He considers it also excellent as a preserve. — *Michigan Farmer*.

IDLENESS.

Nine tenths of the miseries and vices of manhood proceed from idleness. With men of quick minds, to whom it is especially pernicious, this habit is commonly the fruit of many disappointments and schemes oft baffled; and men fail in their schemes not so much for the want of strength, as from the ill direction of it. The weakest living creature, by concentrating his powers on a single object, can accomplish something; the strongest, by dispersing his over many, may fail to accomplish any thing. The drop, by continual falling, bores its passage through the hardest rock, the hasty torrent rushes over it with hideous uproar and leaves no trace behind. — *Thomas Carlyle*.

THE LATE VINTAGE IN FRANCE.

During the year 1848, there were 5,000,000 acres of land in France planted with vines, which produced 919,580,575 gallons of wine and 27,220,050 gallons of brandy, estimated at the enormous sum of 479,088,302 francs, (£19,121,000.) The average value of each acre of vines may be taken at 530 francs, (£21.) The annual consumption by each individual in France is calculated at 18 gallons of wine and 3 gallons of brandy. — *Cleveland (Ohio) Herald*, 1849.

LARGE POULTRY.

At a show held in England, under the direction of the late Earl Spencer, the following were the dressed weights of some of the poultry exhibited: The best turkey weighed 20 lbs. 4 oz.; capon, 7 lbs. 14 oz.; pullet, 3½ lbs.; goose, 18 lbs. 2½ oz.; couple of ducks, 15 lbs. 10 oz.

MUSIC OF SPRING.

"There's music in the balmy breath
Of spring, when from the realms of death
She calls the flowers to life again,
And decks with gorgeous hues the plain,
Then wakes to notes of harmony
The grove's enchanting minstrelsy.
There's music in the murmur low
Of gentle waters rippling by—
There's music in the onward flow
Of rivers in their majesty.
There's music in the bubbling fountain—
There's music on the sun-bathed mountain—
There's music on the earth—
There's music in the air—
And music into birth
Is bursting every where."

THE OLIO.

HOUR OF DEATH. — It will afford sweeter happiness, in the hour of death, to have wiped one tear from the cheek of sorrow, than to have ruled an empire, to have conquered millions, or enslaved the world.

LIFE-LIKE. — The Philadelphia Galaxy says an artist in that city painted a cow and cabbage so natural that he was obliged to separate them before they were finished, because the cow commenced eating the cabbage!

Rousseau says, "The empire of woman is an empire of softness, of address, of complacency. Her commands are caresses, her menaces are tears."

Why is a chicken pie like a gunsmith's shop? Because it contains fowl-in-pieces.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, APRIL 14, 1849.

NO. 9.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

FRUITS AND FRUIT TREES.

[Concluded from p. 120.]

At the agricultural meeting, March 27, Hon. M. P. Wilder in the chair, the discussion on the above subject was continued.

Mr. Wilder observed, that farmers generally know how to preserve winter apples, but the keeping of pears is not so well understood. This is important, owing to the high price of winter pears. Mr. Paquett, of France, succeeds remarkably well, by having a room within a room, and placing his fruit in the inner room, packed in oaken boxes, with dry sawdust and charcoal dust two thirds up the fruit, which is placed stem upward. In this way pears are kept perfectly sound till July. Apples may be kept in a temperature nearly down to freezing, without injury; but pears should be kept at a temperature of about forty-five degrees, till sufficiently advanced for ripening, which should be effected in a warm room. If they are kept in a colder state, they become injured, and cannot be recovered.

Hon. Mr. Brooks, of Princeton, said, that farmers should raise their own fruit trees, rather than buy those that were forced to a rapid growth, by high culture in the nursery, as such trees would not do well on poor lands. Fruit from land in moderate condition is better than that produced by high culture. It requires about twenty years from the seed to get apple-trees into a productive state.

Mr. Dexter, of Plymouth, inquired for a remedy for lice under the leaf that destroy the foliage and fruit. Some of these, kept under glass, changed to house flies.

Mr. M. S. Rice, Esq., of Newton, recommended soap-suds or whale-oil soap, as a remedy for insects. He was reaping fruit from trees set twenty years ago. He considered the birds our best friends; even the crow is a useful bird. He once had a tame one that followed him in the field, and picked up insects.

Colonel Wilder said, that men had set trees at a late period in life, and yet they lived to enjoy the fruits of their labor.

Mr. William Parker said, that he packed his

apples in barrels, with oat chaff, and they kept remarkably well. He let them remain out door in the fall, till there was danger of freezing.

Mr. Jones, of Wayland, said, that he had grafted old apple-trees with excellent success and profit. For a few years past, he had picked from ten to twelve barrels a year, from an old tree that his neighbors said was not worth grafting. He thinks that sweet apples are better for grafting on the stocks of sweetings. He perceived a difference in the color and flavor of Porter apples when grafted on stocks of the Siberian crab.

Colonel Hubbell, of Berkshire county, said, that he had preserved apples, in excellent condition, in oat chaff and air-slaked lime. In this way he kept fall apples in good condition till March, and winter apples to a late period, preserving their freshness and flavor better than in any other way.

Mr. H. C. Merriam, of Tewksbury, said, that he soon got fruit by grafting old trees. He took off the whole top at once. He would buy trees in the nursery rather than wait for them to grow from seed.

Mr. A. G. Sheldon, of Wilmington, said, that young farmers want encouragement in this business. Trees well set will cost about one dollar each, and for nine years they will gain in value one dollar a year. Old men should set trees for posterity, as they share in the fruits of the labor of those who have preceded them.

Mr. Cole, of the New England Farmer, said, that in raising trees we should select seed from healthy and vigorous trees. Seeds from natural fruit are better than those from grafted fruit. He would set trees from the latter part of September to the last of May. He preferred the last of September and first of October, as trees set at that season would throw out small fibrous roots in the fall, and attain a good growth the next season. When set in the fall, a mound of earth should be formed around the trees to protect the roots. He did not think that the extreme cold injured the peach buds so much as the sudden changes in the weather. Sometimes the buds are killed early in winter when the cold has not been severe.

CULTIVATION OF FOREST TREES.

On Tuesday evening, at the agricultural meeting, Mr. William Parker in the chair, this subject was discussed.

Mr. Buckminster, of the Ploughman, recommended raising forest trees by the road side, affording a grateful shade, a growth of timber, and shelter from winds. By the use of evergreens, the drifting of snows would be prevented. He recommended white pine for this purpose. The rock maple is excellent to set on the south side of roads. In transplanting pine trees, it is not important to take up long roots, but a sod of earth with the roots insures success.

Mr. Sheldon, of Wilmington, said, he thought that the white pine perfected its seed only once in three years; and all in the country, as far as his observations had extended, ripened their seed at the same time. He found that in Massachusetts, New Hampshire, and Vermont, all the cones were small the next year after the seed had come to perfection. Some lands that sold thirty-five years ago, three years after the wood was cut off, at four dollars per acre, are now worth one hundred and ten dollars per acre. Forest trees will grow on poor land. In saving pines for seed, it is best to leave them in clumps, as single ones may blow over.

Dr. Bardwell, of Whately, said, that there were extensive tracts of land in some parts of the state that produced only about six bushels of rye to the acre, which would hardly pay for cultivating. On these lands good crops of pines might be raised, and with profit. He thought that pitch pines were the most profitable, as they would grow on poorer lands than white pine.

Mr. Cole, of the New England Farmer, said, that the seeds of forest and fruit trees, generally, would not vegetate if sown dry in the spring. They should be sown in the fall, or put into moist earth, and buried in the ground, or placed in the cellar. In the latter case, it was necessary to keep up a moderate degree of moisture only, as wet or dryness would be injurious. It is the least trouble to keep them buried in the earth, if the land is not prepared for sowing in the fall, as they are liable to dry in the cellar; but this may be prevented, in a great measure, by putting them into tight vessels. Stone, earthen, or iron vessels are good, as they do not absorb the moisture from the earth. Some writers speak of certain kinds of seeds that will not vegetate till the next season: this opinion is probably the result of sowing dry seed in spring.

Mr. Jones, of Wayland, thought that raising forest trees was the most profitable part of farming. He purchased a wood lot, and paid ten dollars an acre for it and interest on that sum during the time the wood had been growing on it. He thought it was best for a farmer to cultivate a little land well, and raise forest trees on the rest.

Mr. Sheldon said, that he had transplanted pines in the middle of summer with excellent success.

Prosperity is no just scale; adversity is the only true balance to weigh friends.

NOTICES OF PUBLICATIONS.

MANUAL OF MORALS, for Common Schools, adapted also to the Use of Families. 212 pages, 18 mo. Published by John P. Jewett, Boston; William E. Wardwell, Andover.

This is a work of sterling merit, on a subject too much neglected in the education of youth. Great pains are taken to give the child instruction in science and literature, but little is done to give him systematic instruction in morals, and show him how to make his acquisitions in knowledge available in discharging his duty to his God, his fellow-beings, and to himself. These important duties are taught in this neat little work, in a clear and pleasing manner, particularly from the numerous historical and anecdotal illustrations. No person, young or old, can read this manual without improvement, unless he is so far advanced as to need no amendment.

THE WISCONSIN FARMER, is a new paper, which we neglected to notice in our list of agricultural journals in our last number. It is a neat octavo, and ably conducted; published monthly, by Mark Miller, Racine, Wisconsin, at 50 cents a year.

ACKNOWLEDGMENTS.

Of Messrs. S. and G. Hyde, nursery-men, Newton, the fruit and scions of the Philadelphia Pippin apple. This fruit is small, very fair and handsome, and remarkable for its freshness and fine flavor after late keeping. Whether this is the true name or not, we do not know. Among numerous collections of scions from some friends, and distributions to others, were some under this name, which we furnished to these gentlemen. This is the first fruit which we have seen of it, and we are pleased to find it so promising.

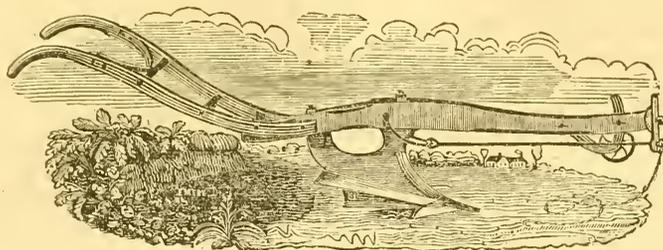
Messrs. Hyde go mostly for the well known and excellent varieties of fruit, cautiously introducing and giving a fair test to new kinds. They have in their nursery a large assortment of fruit-trees of standard kinds, well adapted to the climate.

Of Samuel Walker, Esq., Chelsea, some noble specimens of the pound pear, as fresh as when they were gathered. This variety is a great grower and bearer, the fruit very fine for cooking, and it is in use from November till May.

Of Mr. Jacob Noyes, Abington Centre, specimens of several kinds of seedling potatoes, which he recommends as excellent. We shall try them, not by eating, but by planting them, for experiment in comparison with other kinds. The samples are fine, and we are much obliged to Mr. N.

We are indebted to Samuel P. Fowler, Esq., Danvers, for plants of Houghton's Seedling Gooseberry.

Dr. J. W. Francis, who commenced life as a printer, in some remarks at the Franklin festival in New York, alluded to the singular fact that, when he afterwards became a lecturer in the medical college of that metropolis, one of the text-books which he employed was a copy of the proof sheets of a work every type of which had been set by his own hand, when a printer.



SUBSOIL PLOUGH.

It is only a few years since the first subsoil plough was introduced into this country; and we had the pleasure to assist at the first trial, on the farm of John Fenno, Esq., in Chelsea. This plough was purchased by Mr. Charles P. Bosson, in England, for Messrs. Ruggles, Nourse, & Mason: it cost forty dollars in that country.

Now, superior subsoil ploughs, may be had in this country, for one fourth of the cost of that in England; and they are of greater strength, for we used that plough only a short time before it was twisted so that a common observer could hardly tell for what purpose it was intended.

The subsoil plough is a valuable implement on many soils, by deepening the tillage and giving sufficient room for the descent of the roots of plants, and to promote the ascent of moisture, in dry weather.

By the use of this plough, the subsoil is loosened deeply, and gradually mixed with the active soil, and brought to the surface, where, by changes from the air, rains, snows, and frost, it becomes improved, and restores, in some measure, many ingredients that have been lost from old lands.

Numerous examples have been given to the public, showing the great utility of this implement. Yet, in some cases, it has been reported that there was no perceptible advantage from its use, while in other cases, the crops have been increased fifty per cent. See the remarks of Professor Mapes on this subject, p. 138.

DITCHING AND DRAINING.

At the agricultural meeting, on Teusday evening, this subject was discussed.

Mr. Buckminster said, that he hired ditching done by the job. He gave twenty-five cents a rod for ditching three feet deep and three feet wide. A man would make six rods of ditch in a day. He usually makes ditches four rods apart, and parallel, for the convenience of ploughing.

Mr. Merriam said, that he found it necessary to make ditches around the meadow, to cut off the water from the high land. He preferred open to blind ditches.

Mr. A. G. Sheldon remarked, that by ditching a maple swamp, the growth of trees was greatly improved; they declined on the ditch getting filled up,

and revived on its being opened. In thirty years, the growth amounted to forty cords to the acre.

THE PEACH BUDS.

There has been some unnecessary alarm as to the peach buds, as it was stated by several speakers at the agricultural meeting, that they were generally killed, so far as their observations had extended; but on examination, and by inquiry from cultivators in different sections, we think that more than half of the peach buds are sound, and that there is a fair promise of fruit. Friend Earle, of the Worcester Spy, says, that from examination he thinks that two thirds of the peach flowering buds are in a healthy condition.

As the past winter has been colder than the winter of 1847-8, and the peach buds are killed less, the argument, drawn from a partial and hasty view of the subject, that it is the severe cold, and not the changeable weather, that kills, falls to the ground, so far as relates to the last two winters. The last winter was noted for severe and steady cold, and its predecessor for mildness and variability, during which the fruit buds of the peach were nearly all killed. So every season affords additional evidence in support of the proposition which we have frequently offered on this subject.

GUTTA PERCHA FOR GRAFTING.

At the agricultural meeting, on Tuesday evening, Dr. Sanborn exhibited a preparation which he had made for grafting. It was composed of gutta percha, dissolved in chloroform, having the consistency of thick molasses. He had used it with excellent success. It is applied, in a very thin coat, with a brush. As this is a new article for this purpose, and some who try it may not get it of the right consistence, we advise its trial at first in a small way. Dr. S. remarked, that it was valuable for wounds, burns, and sores, such as the salt rheum, &c., as a thin coat protected the raw flesh from exposure, and thus promoted healing. Gutta percha will prove to be a valuable acquisition, both in the arts, and in medical appliances. It is a new article, and numerous, and varied experiments are necessary to test it fairly; and this will soon be done among the enterprising and ingenious.

For the New England Farmer.

TRANSPLANTING TREES.

MR. EDITOR: The season is approaching which many persons will improve for the transplantation of fruit and forest trees; but others, whose lands may be well prepared by the spring ploughing, will defer this work until the ensuing fall, in the belief, that the autumn is the most favorable season for the removal of trees of every description. Which is the best season for setting trees? This is a question which is often raised. In the fall of 1846, I made this inquiry of many experienced agriculturists, and their opinions upon this subject left me quite as undecided as I was before I put the interrogatory. Their recommendations, alternately of spring and fall, nearly balanced each other, and produced in me a state of indecision, which I, at last, removed by consulting my own convenience. I deferred the work until the spring of 1847. I then transplanted five or six hundred fruit and forest trees; and the success which resulted from this labor I will proceed to communicate.

One piece of land, on which I set between one and two hundred apple-trees, had not, for many years, been improved. It was an exhausted soil, and considered as of little value. The field has a southern inclination, the upper part dry and loamy, while the lower portion is wet, and, in some places, even boggy. The land was ploughed in the fall of 1846. In the following spring, thirty loads of stable manure, and twenty-five of meadow mud, which the frost of the preceding winter had rendered friable, were spread upon it and ploughed in; the trees were then set at a distance of two rods. These trees all lived, and grew vigorously, even the first season. They all put forth the second spring, and grew very thriftily through the season, with the exception of a single tree, which was injured by the tillage. Many of these trees, at the close of the second season, had attained to the height of eight feet, and their stalks, at the surface of the ground, were six inches in circumference. These trees have, at least, quintupled their size by two years' growth.

On another piece of ground I set three to four hundred fruit and forest trees, and shrubs. This land had been improved as a field for several years, and was in a much better condition than the former lot; yet, as this was designed for a house site, and as it was desirable to produce from it a variety of fruit at the earliest possible day, a much larger quantity of manure was bestowed upon it; and upwards of one hundred apple, pear, peach, cherry-trees, &c., were transplanted into it, with great care, in the spring aforesaid. These trees, with the exception of two cherry and one pear-tree, put forth leaves the second season. They *lived*, but they do not grow. Many of these, the pears especially, produced but a few small leaves; the bark looks sickly, and spots of moss appear on the trunks. I indulge the hope that by still more liberal manuring, and by washing the bark with potash water, they may yet be reclaimed, and become thrifty. The difference in the appearance of the trees, on the two lots before named, has developed to me a rule which, if it had been suggested to me at an earlier period, would have been of great service, and which I will now lay down, in the hope that it may still prove beneficial to others. The apple-trees in the ground first named were from Rhode Island, from a light soil, commingled with sand; and they were set in land which, although not very well prepared, was still better than that from which they were taken. The trees upon the other lot, which was made much richer, were taken from nurseries in the vicinity of Boston, from a soil much stronger than that to which they were transferred. In view of these facts, then, I

will venture to say, let fruit trees never be removed from a rich to a poorer soil.

In the last day of April, and the first of May, 1847, I also transplanted several hundred shade and evergreen trees; but my success with these was rather indifferent. The pine, cedar, balsam fir, *arbor vite*, and Norway spruce, generally lived, but grew but very little, even in the second year. Of about forty hemlocks, I saved only some ten or twelve; and I have several hollies which survive, but which, as yet, put forth but a thin and sickly foliage. Perhaps I ought to say here, that the July succeeding the season in which the evergreens were transplanted, was very dry, and the trees were not well attended and watered during this period. The shade trees, set in April, 1847, succeeded rather better. The elm, ash, and maple, all leaved out the first year, and grew well the second season. Of my sassafras I lost one half; of my oaks, about two thirds. I have succeeded, but at the expense of great care, in preserving two fine shagbarks, or hickory trees. These were removed from their natural position, and reset by an experienced hand, and watered, almost daily, for the first summer. About one third of my beech-trees were saved. And here I beg to say a word in praise of the beech, a tree not generally esteemed, in this part of the country, for shade or ornament. It is a shapely, cleanly tree, yielding a delicious nut, which becomes larger, and even sweeter, by cultivation; and it retains its leaves to a later period in the fall than almost any other tree of the deciduous class. Homer and Virgil have noticed this tree. It was a beech which stood at the Ocean gate of ill-fated Troy; and it was under a wide-spreading beech that Tityrus breathed forth his amorous strains on his slender pipe; and the first parks of Europe, relying on reports which have been often made, are stocked with this tree, and esteemed as highly as any of the shades in the country, not excepting either the oak or the elm.

All the lesser trees, and flowering shrubs, which were set in the season aforesaid, have done well, with the exception of the purple beech. These put forth a few scattering leaves in June, but they soon fell, and the shrubs were dry and dead before the close of summer.

My experience, in regard to fruit trees, induces me to recommend the spring season for their transplantation; but I am not fully satisfied with the result of my labors in relation to shade trees and evergreens. Perhaps the last would have done better if their removal had been deferred until the last of May or first of June; and it may be that both are more likely to succeed when transplanted in the fall. I hope, Mr. Editor, some of your correspondents, who have tried different seasons of the year for transplanting shades and evergreens will communicate the results of their trials through the medium of your paper. Let the experiments of the past, in matters of agriculture, be collected into a common fund, for the benefit of the farmer in his future operations.

ABRAHAM T. LOWE.

BRIDGEWATER, March 20, 1849.

For the New England Farmer.

TALMAN SWEETING—SOUTHERN TREES.

MR. EDITOR: I see by the newspapers that the subject under consideration, at the last agricultural meeting, was fruit trees, transplanting, &c. A subject of more importance could not be brought before you. I read the remarks of one of your speakers, recommending a number of kinds of apples that should be cultivated, and among them the Talman Sweeting. My experience in the cultivation of

fruits, leads me to doubt very much recommending the cultivation of fruits, brought from one section of the country to another, without first ascertaining whether the fruit will do well.

Permit me to give you my own experience, in the cultivation of the Talman Sweeting. In the fall of 1834, we had but little fruit in any part of the country, excepting in Maine. There was a frost, on the 15th of May, that cut off all the more tender fruits at the south and west, and nearly all the apples in all the states except in Maine. Seeing there was a scarcity of fruit in this region, I went to Augusta, Me. in October, and there, for the first time, I saw the Talman Sweeting, and it grew in perfection. I thought much of it, and in the spring of 1835, I sent down, and obtained one hundred scions, for which I paid one dollar and fifty cents. I gave some of them to my neighbors, and set some of them myself. We put them on three farms, in different parts of the town, and have given them a fair trial, and they will do nothing; they will not pay the cultivation. One of my neighbors grafted a fine row of trees just in bearing state, and he is now grafting over again. The apples are knurly, and not fit to eat.

It is of the utmost importance, for any one commencing an orchard, to select those fruits which are known to grow well, that he may not be disappointed. It is now a well ascertained fact, that fruits will not flourish in every part of the country equally well. I noticed one circumstance, last fall, which I have never observed before. In the spring of 1844, I went to Keyport, New Jersey, and bought some peach and apple-trees. In 1845, I ordered more peach-trees: some of the trees I set out myself, and sold to others. In 1847, they bore some fruit. Last year, there was not one peach to be seen on the southern trees, while there was some fruit on all, or nearly all, of the trees raised here. I should hardly have been willing to believe it, had I not seen and examined myself.

This is an important fact, worth remembering. The trees that came from New Jersey appeared to stand the winter; that is, the branches were not killed by the winter; but how it was that the fruit was all killed on the southern trees, and on the others it was not, is more than I can account for.

I took some scions from New Jersey, of the Jersey Pie Apple, and set them; and last fall the tree, although a small one, bore some very fair, and handsome apples. From what I have observed within the last year, I very much doubt the utility of buying trees from the south; although, previous to this time, I thought the trees that came from New Jersey did quite as well as trees raised with us.

Respectfully yours,
DANIEL LELAND.

SHERBURN, March 26, 1849.

EDITORIAL REMARKS.

From the foregoing communication, it appears that the Talman Sweeting does not sustain its usual character with Dea. Leland; and there is hardly any fruit that does well every where. Some kinds seem limited to a few sections, while others are adapted to various soils and climates. The Talman Sweeting is popular in most parts of the country, from Maine to the West. It is a native of Rhode Island, where it is extensively cultivated. It succeeds well in this vicinity, in strong soils. More apples of this variety are sold in this market, than of all other winter sweet apples. We have no winter sweet apple that is a universal favorite, like the Baldwin, Greening, Sweet Bough, &c. The Danvers Winter Sweet,

Talman's Sweeting, and Seaver Sweet, (Can apple of Coxe, probably,) generally succeed well.

As to southern trees, it is evident that they are more tender than those raised in the north. No one would suppose that an African could endure the cold of Greenland like a native of that frigid region. Peach buds are often killed, while the trees are uninjured.

For the New England Farmer.

FOR BLEEDING IN GRAPE VINES.

MR. COLE: I will mention a remedy for the bleeding of the vine. Some four or five years since, in the spring, I removed from an Isabella a stalk of about three fourths inches diameter. It began to bleed at once, and profusely. My purpose was to endeavor to sear the wound by burning on it common sulphur. Accordingly I made the cut *horizontal* and *smooth*. Wiping it dry, I placed the sulphur upon it; but before I could ignite that, the sap had completely saturated it. I then concluded to press the powder into the pores of the wood. With my thumb I did so, pressing hard and using a somewhat grinding motion. The operation was repeated two or three times, and in about five minutes there was no discharge of sap. I have tried this remedy several times, and with equal success. Probably any fine powder, as pulverized plaster, and perhaps wood ashes, will answer. But I have always used sulphur. As the extremely hard pressure and friction produce soreness, I now wind a narrow strip of firm leather around the thumb.

Yours, &c.

J. HUBBARD WELLS.

EAST HARTFORD, Ct., March 26, 1849.

For the New England Farmer.

DO YOUR OWN GRAFTING.

MR. EDITOR: Of the multitude of different pursuits in the art of agriculture, grafting now claims particular attention. It is for the interest of every farmer to become versed in this easy, simple, and important science. Boys, in this vicinity, have, for a number of years past, performed this work with pleasure and unrivalled success. True, they may not set so many scions in a day as those who are older and more experienced; but we guaranty to say, that they will be more successful. Not only this, but we know from experience that the latter often kill the tree itself, thus, perhaps, destroying a very promising and valuable production.

The reason for this is evident among the inhabitants in this, the chief farming section of this town, who pay considerable attention to the raising of fruit; having raised, in one year, from six farms, — all bordering upon one another — upwards of three thousand barrels. We discard the use of composition in grafting; believing that it contains substances that are poisonous to the tree: hence it is that those who use it have so little success. We believe it would be equally wise and judicious for the human family to make a common use of prussic acid, as it is to use this composition as a substitute for clay in grafting. It not only checks the growth of the scions and tree, but the stocks will not heal over for a number of years; but if clay had been rightly prepared and used, they would have healed in half the time.

Clay, in its raw state, is generally too strong; therefore it is best to reduce it by mixing dry horse manure or loam, which makes it more flexible. Sci-

ons do the best when set in clay. As an example, our neighbor employed a man last spring to graft a young orchard, which he set out two years before; and the result was, some lived and some did not. We set out a young orchard at the same time, trees of the same age, and grafted them the same spring, and there is not a single stock but what lived; and I might add, there is not a single scion that did not grow nearly three feet the last year, and some grew four feet. We used clay, and our neighbor used *va.v.*
D. W. JOINSON.

Woburn, March, 1849.

EDITORIAL REMARKS.

We present the views of our correspondent, but we cannot endorse them all. We highly approve of teaching boys to graft, and those who are tractable will soon learn to perform this operation well. Yet there should be no objection to men practising this art; and frequently great experience and mature judgment are necessary in this business. There are some, who profess to be adepts in this art, that manage to make a good job, disregarding the interest of those who employ them. But this is no objection against worthy and skilful men who attend to this branch.

As to the use of clay or composition in grafting, there is far less trouble in the use of composition, and we believe that it is as sure as clay. If the stock is thrifty, and none other is fit for grafting, it will heal over in a short time, and the composition will do but little injury to stock or graft. Composition is now almost universally used, and the change from clay to composition has been the result of long experience and observation by intelligent men, who have in this thing studied their interest, and made very accurate experiments.

For the New England Farmer.

THE PEACH.

MR. EDITOR: At a meeting of the Legislative Agricultural Society, held on the 20th of March, a gentleman from Framingham alluded to the generally conceded fact, that peach-trees did best on elevated lands. He had formerly believed, with others, that it was owing to the absence of frosts in these positions, and their great prevalence and injurious effects on the buds in the low lands. But this opinion he had abandoned, as he lately had a fine crop of peaches after an early spring and late severe frosts. He now thought the high land culture the more successful, from the circumstance, as he believed, that in these positions the average cold of the winter was not so great as in valleys or on plains.

But is this a fact? Is not the relative cold on high lands greater than in low? I grant that, in the spring, when the land is naked, low and generally damper soils throw off more moisture to the atmosphere than the high, and consequently at night there is more moisture on the trees to be acted upon by the frost; or that they are less exposed to the drying influence of the wind than those on hills; but during the greater part of the winter, when the earth is frozen or covered with snow, these exhalations not taking place in valleys more than in other positions, we cannot perceive that the coldness of the winter would have different effects, unless it is in fact greater in valleys than in higher and exposed positions, which is what I wish to ascertain.

L.

EDITORIAL REMARKS.

Our correspondent must have misunderstood the speaker, or consulted some report that was not correct. Major Wheeler thought it was the extremely cold weather that killed the peach buds, and not the sudden alternations from heat to cold; and he remarked that high lands were the most favorable to raising peaches, as on such situations the extreme cold is less than in valleys, and of course less liable to kill the buds. He did not say that the average temperature was less on high lands.

We have often given our opinion on this subject, and we could bring thousands of evidences to support it, by estimating in the manner of the good lady who had six objections to marrying a gentleman, which were, her husband and five children; for each tree would be a witness. We have often urged the importance of setting peach-trees on elevated lands, not merely because the extreme cold is less there, but because the extreme heat in the cool season is less in proportion than the extreme cold. For the warm sun, and mild, wet weather start the sap and the buds, and predispose them to injury by sudden cold; and this is not all; the hot sun on the frozen buds is doubtless still more injurious than the warm weather that precedes freezing, or the severity of the frost. For we found, on examination, that the buds had been killed in December from sudden changes in the weather, when the thermometer had not, for the season, been lower than fourteen degrees above zero.

For the New England Farmer.

EFFECT OF THE STOCK ON THE SCION.

MR. EDITOR: A correspondent in the third number of the *New England Farmer* has put the query—"Has the stock any influence on the quality of the fruit of the graft?" Not having sufficient experience myself to answer this question, and as he thinks it has no such influence, I would suggest the propriety of publishing the following from Pessenden's *American Gardener*.

"The nature of the fruit is, to a certain extent, affected by the nature of the stock. Miller says decidedly, that crab-stocks cause apples to be firmer, to keep longer, and to have a sharper flavor; and he is equally confident that if the breaking pears be grafted on quince stocks, the fruit is rendered gritty or stony, while the melting pears are much improved by rich stocks. This, according to Neill, is scarcely to be considered as inconsistent with Lord Bacon's doctrine, that the scion overruleth the graft (stock?) quite, the stock being passive only; which as a general proposition, remains true; it being evident that the scion, bud, or inarched shoot, is endowed with the power of drawing or forming from the stock that peculiar kind of nourishment which is adapted to its nature, and that the specific characters of the engrafted plant remain unchanged, although its qualities may be partially affected."—*Ed. Ency. art. Horticulture.*

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

This is a subject on which much may be said on both sides; but at present we will attend to one point, and that is, the referring to Lord Bacon as authority on a subject on which he probably had no

practical knowledge. Some would say that he was a man of science, and he was doubtless well acquainted with many sciences; but had he been well skilled in vegetable physiology and practical horticulture, he would never have made that noted remark which has long been a stumbling-block in the road of improvement.

We will notice one more erroneous view, which many take of this subject; and that is, that science favors the opinion that the stock has no effect on the fruit of the scion. Now, as science is a system of facts, we ask how science can be in opposition to facts. How can one truth be in opposition to another? There is many an error passing under the plausible name of science.

For the *New England Farmer*.

DIARRHOEA IN CATTLE.

MR. COLE: On Tuesday, February 6, 1849, while sledging wood with my team, I observed that one of my oxen was affected with "diarrhoea or looseness," (as you call it in the "Veterinarian,") fully equal, or worse, than cattle have, when changed from hay to grass in the spring, when the grass is flush. The next day and the day after, the rest of my oxen (four in all) and two cows in milk, kept at the same barn with the oxen, were badly affected with it; and about the same time four last spring calves, kept at another barn one hundred rods distant from the oxen, were taken; also ten cows, and four steers kept in a field fifty rods from either the oxen or calves, were in a similar case, all within a week from the first ox. My horse and sheep (over one hundred) have not been affected by it, although they ate with all the cattle of the same kinds of hay, and drank with them from the same streams. No other cattle in the vicinity, that I can hear of, have been affected in a similar way.

They were taken very violently, and the dung ran from them in a full stream; they ate but little, for one or two days, but got better of the diarrhoea after about four days: they lost much of their flesh at the time; but have now regained it, and are well and hearty to appearance. We "doctored" but little, indeed none except two or three animals. The weather was exceeding cold at the time, the thermometer being below zero frequently in the morning.

As to the condition and keep of the cattle, I would say, the oxen, two cows in milk, and the last spring calves were in good flesh, and had been regularly stabled or had lain in comfortable sheds, and fed on good hay, mostly from the barns. Some of the hay was cut the past season, some the year before. The other cattle were kept on poorer hay, and lay on the ground: they were in ordinary flesh; all were attacked alike, whether kept on good or bad fodder, or stabled or not. These cases, considering the time of the year, &c., &c., are new to us, no such thing ever happening in this region before, so far as I can learn.

CHARLES B. AYER.

PRESTON, Ct., *March*, 1849.

EDITORIAL REMARKS.

We can assign no cause for the disease named by Mr. Ayer. Its occurrence in cold weather is very unusual. Yet there must have been a general cause, and a local one too, though it may be beyond the power of investigation. Analogous cases are not unfrequent. Sometimes a disease, affecting bipeds or quadrupeds, prevails in some sections, while it is

a time of general health in other regions of the same country. Again, a disease is confined to a single district, neighborhood, family, or to an individual. We have known a large family to be all afflicted with a severe, and in several cases a fatal disorder, while all the neighbors escaped, though often attending upon the sick and the dying.

THE CULTIVATION OF THE POTATO.

EDITORS CULTIVATOR: My own experiments of eight years with the potato have very much encouraged me to continue the alternate culture of seed and its seedlings, with careful selections.

The process does materially improve the potato in *new and excellent varieties* — in health and productiveness. At the same time, much depends for success upon a proper situation and preparation of soil, manner of cultivation, time of planting, lifting, and good storage.

Good upland soil, deep thorough ploughing, early planting, with well cultivated approved seedling varieties, in shallow drills, early weeding, light hilling, early lifting, and dry airy storage, do more for the redemption of the potato from disease, than all the nostrums the world can devise.

Potato seed, though it produces generally several different varieties in its seedlings, will not be likely to produce varieties or qualities with which it has no connection. If new and choice varieties be expected from sowing the seed, care should be taken to obtain seed from good varieties, or in the immediate neighborhood of the same.

Seed from the balls will transmit from a diseased stock, in some degree, that disease to its seedlings — to some varieties more than others.

Some have gathered balls from any where, without regard to the character of the stock, planted the seed, and finding in the seedlings disease and inferior specimens, abandoned at once the experiment; and in their judgment, seedling potatoes are no better than old ones.

The same laws that govern the apple, peach, and strawberry, in their culture for new and choice varieties, govern also the potato. If a new choice seedling apple, pear, or strawberry be desirable, why not a new and excellent potato? But neither is to be obtained without the use of their seed, and may be not without a series of experiments, with careful selections.

Potato seed, from properly selected, well cultivated seedlings, combining through the seed the best varieties at home and from abroad, is among the most valuable seeds to be found in market.

Potato seed may be sown, like the tomato, early in hotbed for an early crop; or, like cabbage, in a rich bed in a warm place, and transplanted; or with a seed planter in the fields, with great profit; or broadcast, on rich, fine soil, and lightly harrowed in, with no other cultivation, and the crop of young seedlings, the very best, for planting the next season.

Early sowing the seed and early lifting give the potato a tendency to early ripening. Lifting the potato before it has perfected its growth, it is found dryer in cooking, will keep better through the winter, vegetate earlier in the spring, and become more hardy in its constitution.

Medium sized potatoes cook better, of finer quality and flavor, will plant more ground by the bushel, and are more exempt from disease.

Nipping off the weeds, just below their roots, soon as their appearance, is a better remedy for the potato disease than *nipping the vines*.

My crop of the last season, combining all my best varieties through the seed from home and

abroad, is good; exempt from the prevalent disease, productive, and developing, from the seeds obtained not long since from different parts of the world, viz., Prussia, England, South America, Mackinaw, and other places, varieties promising a valuable acquisition to the potato market. The crop, of about one thousand four hundred bushels, shows distinctly, in its healthy and strong foliage, loaded with balls, its strongly marked and distinct varieties, and the increase of new varieties of fine appearance, the benefits of the progressive alternate culture.

N. S. SMITH.

BUFFALO, January 4, 1849.
—*Albany Cultivator.*

REMARKS BY EDITOR NEW ENGLAND FARMER.

We are much pleased with the course taken by the Rev. Mr. Smith, in regard to the potato. He not only gives judicious advice as to management, but, by collecting various kinds from different sections of this, and from foreign countries, and raising new varieties from seed, and disseminating seeds and superior kinds, he is rendering essential service to the cause of agriculture, and doing much to improve the most valuable of all roots. From some seeds which we obtained of Mr. Smith, we raised last season, in several cases, a quart of potatoes from a single seed, and some of them nearly the common size of potatoes.

DEEP TILLAGE—SUBSOIL PLOUGHS.

The advantages of deep culture have been so often written upon, and such uncontrovertible facts in relation thereto have been published, that it would seem almost useless to issue another word upon the subject.

There is not a farmer to be found, I think, in Ohio, who has not noticed the superior size of his grain or grass crop where grown along the bank of a ditch that has been cut within a year or two; and yet with such evidence before him of the practical truth of the benefit of deep culture, too many pass on, overlooking the evidence before them, and too often treating the statements made by others of the actual profit derived from deep tillage as "book learning."

Some remedy for improvement of some farms in Ohio, it is certain, must soon be made, or the farmer who intends to reap when he sows must move farther west. Farms are now to be found that have been skimmed about four inches deep with the plough, year after year, and changing from lot to lot, until the occupant has become impressed with the idea that he must "move off," as lands are "worn out in Ohio." That this is a dark statement, or one of a very general application, I would not have the reader believe; but that it is applicable in many instances I can prove.

Now, as some remedy for these apparent worn-out lands must be had, or the occupant "move to a better," let me call attention to the subject; and if a man is not disposed to believe, that by ploughing the land eight or twelve inches, or even eighteen inches deep, where before he only ploughed it four inches, that he will again reap large crops, and increase more than double the expense of extra labor, let him but make the experiment, and he will be satisfied the statement is correct.

In Thær's Principles of Agriculture, (a work, by the way, that every farmer should read,) there is abundant proof of the value of deepening soils; and it is there stated that a soil four inches thick, and which may be estimated as worth forty-two; one six

inches thick or deep, worth fifty; one eight inches deep, worth fifty-eight; one ten inches deep, worth sixty-six, and one twelve inches deep would be worth seventy-four; and that every additional inch of depth beyond twelve adds five per cent. to the value of the soil.

The Transactions of the New York State Agricultural Society abound in statements, from practical men, of the benefit derived from an extra depth of ploughing over the common practice.

Subsoil ploughs have been described and illustrated in this journal, that it may be presumed every reader knows of them and the mode of using them. I will only add, therefore, for the benefit of farmers residing in Wayne county, or who make Wooster their market place, that they can obtain subsoil ploughs, made after the eastern pattern, of Mr. James Johnson, at his agricultural warehouse in Wooster.

Very respectfully,

—*Ohio Cultivator.*

F. R. ELLIOTT.

EXPERIMENTS WITH GUANO.

I am one of the pioneers in the use of guano in this section of the country, having used it for about five years. My first experiment was on an old, worn-out sedge lot, on which I applied at the rate of three hundred pounds of Peruvian guano to the acre. The product was a fraction over twenty bushels of clean wheat per acre.

My second experiment was upon the same lot, with the addition of three acres adjoining. The quantity of guano applied was about four hundred pounds per acre, part Peruvian and the balance Patagonian. The product was twenty-five bushels of clean wheat per acre, exclusive of scrapings. In each of the above experiments, previous to sowing the wheat, I mixed about a peck of gypsum to every hundred pounds of guano.

My third experiment was also made with wheat, on six acres of the same kind of land as the other two, which were ploughed up directly after harvest, and manured with four hundred pounds of Patagonian guano, mixed with two bushels of charcoal dust per acre, applied at the time of sowing. The wheat now looks fine, better than the years previous; but whatever the result may be, next harvest will tell.

It may be proper to state, that in my first experiment, owing to the previous season being wet, about one third of the seed sown did not come up; and in the second experiment, at the time of seeding, the ground was somewhat like a mortar bed, and a considerable quantity of the wheat plants were winter-killed. The quantity of seed sowed in each case was two bushels per acre.

My fourth experiment was with potatoes, by spreading a handful of guano, mixed with plaster, to every one or two yards along the furrows after the tubers were dropped. The product was middling, size of the potatoes good, quality first rate, and no rotten ones.

I have also tried guano to Indian corn by applying it in the hill; but owing to the dryness of the season, I have not reaped that advantage I anticipated. In one instance, I sowed a small square broadcast, ploughing in the seed, which resulted in from one third to one half more corn than when the guano was applied in the hill. The quantity of guano used was from three hundred to five hundred pounds per acre.

I have also applied guano to my young fruit trees, as well as to almost every vegetable and flower on my grounds, with marked success.

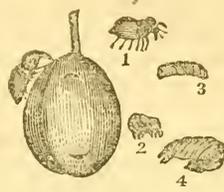
JACOB HEWES.

LEIPERVILLE, PA., January, 1849.

—*American Agriculturist.*



The Plum-Tree.



Curculio in different Stages.

THE CURCULIO.

1. Curculio in the perfect or beetle state.
2. Its assumed form when disturbed, or shaken from the tree.
3. Larva, or worm, as found in the fallen fruit.
4. Pupa, or chrysalis form, in which it lives in the ground.

The curculio (*Rhynchærus nenuphar*) is one of the most insidious and destructive insects that the cultivator of fruits has to encounter. It attacks the plums soon after the fruit sets, puts its crescent mark upon it, in which it deposits its egg, which soon hatches, and the worm destroys the fruit. A great deal may be said of this insect, and of remedies against it; but our object at present is to introduce the remarks of Dr. Eastburn Sanborn, of Andover, which were made at the close of the discussion at the agricultural meeting, April 3.

Dr. S. said, that he had made various experiments in order to learn the habits of this insect, and to find a remedy, if possible. He collected many insects, and placed them in glass jars, some of four quarts capacity. To these jars a balloon or globe was attached, composed of gauze over a wire frame; the ends of the wire were fastened into a cork, fitted to the jar, through which a large hole was made, affording the insects the advantage of air, light, and exercise by flying in the balloon. The jars were half filled with earth, and plums, pears, and apples, stung by the curculio, were deposited in them.

In due time, they hatched, and went through the several stages, and the doctor examined their habits very closely both night and day. When the maggot left the fruit, it crawled into the earth, on the outside next to the jar, affording an excellent opportunity for observation. It descended to the bottom, where it remained, as near as he could recollect, about six weeks, when it was changed into the pupa state.

As the earth became dry in August, water was poured into the jar to moisten it, and the insect was soon changed into the perfect state; and they ascended, filling the balloon and flying about in every direction. He showed them to his friends, and found that but very few people could recognize these insects. He had also placed infected apples in the jar, but the apple worm did not go into the earth.

The doctor recommended jarring the trees, in order to free them from this insect, which he found to be very subtle. When approached, it rolls itself

up, (see figure 2, in the cut,) assuming the appearance of the bud of whatever tree it is on; and if an attempt is made to take hold of it, it suddenly rolls to the ground, where it cannot be found. After all danger is passed, it flies again to the tree. He had placed a board under a plum-tree, and scarcely any plums were stung over the board, as instinct had taught this insect not to lay its eggs where its young could not burrow in the earth beneath. A smooth, hard surface, under the tree, was a protection against the ravages of this insect. Dr. S. made these remarks with a view of showing, in some measure, the habits of the curculio, and leading to further investigation.

PREPARATION AND PLANTING OF APPLE SEED.

"How should apple seeds be prepared for planting, and what is the proper time and manner of planting?" As to the preparation of seeds, see p. 33 of this volume. Sow apple seeds as soon as the land is dry enough to work. Sometimes they sprout so early that it is necessary to select rather dry land, and plant very soon after the frost is out of the ground. We put our seeds of fruit trees into an ice box, as soon as the weather becomes warm, in spring, to prevent their sprouting till the land is dry enough to work, or we can conveniently attend to it, as we have much to do at this busy season; and we prefer planting some kinds on moist land. Sow apple seeds in drills, and cover as corn or other seeds. The drills may be from fifteen to thirty or forty inches apart, according to the mode of cultivation.

NEW VARIETY OF FLAX.

It is stated in the Ohio Cultivator, that Mr. Samuel Myers, near New Lisbon, cultivates a new variety of flax, which yields an unusual quantity of seed, and is valuable when flax is cultivated exclusively for seed, and it is said to be superior for oil. The stalk is short, and the lint is of but little value.

TO KEEP BIRDS FROM FRUITS.—Suspend, in the trees or vines, pieces of looking-glass by a string, so as to turn freely in every direction. No bird will come near, after a first trial or so, unless very tame.

AGRICULTURAL PAPERS.

The following extract from the report of Mr. J. G. Chadsey, of Wickford, R. I., to the standing committee of the Society for the Encouragement of Domestic Industry, shows the opinion of a successful applicant for a premium on vegetable crops, whom the committee highly commend for his intelligence and correct views.

I will mention one other mistake that many farmers have fallen into, and some still adhere to it; and that is, an unwillingness to inform themselves in the duties of their calling by reading agricultural publications. New improvements are constantly taking place, and an abundance of light, on the subject of agriculture, is flowing from the press in every direction, and at so cheap a rate that every farmer who can read may enjoy its benefits. A man who cultivates two acres of land, will in the course of a year derive more benefit from an agricultural paper than will pay the cost. This I know from experience. Previous to commencing farming, at the age of three-score, I took an agricultural paper, to aid me in the cultivation of some worn-out land, that I could not rent for four per cent. From that little sheet I gleaned much valuable information; such as the method of composting manure, and the kind best adapted to a particular soil; the advantage of a rotation of crops; directions for selecting the best variety of seeds, with the method of cultivating each kind; and also, frequently cautioned not to improve more land than could be well manured and cultivated to advantage; together with many other suggestions and recommendations, drawn from the experience of practical cultivators. But still there is much published that is of no benefit to a common farmer; but by rejecting that, and treasuring the good, he will find much to aid him in his business. Had I been deprived of that source of information, derived from agricultural publications, during the few years that I have been engaged in my new calling, and have had no other guide to direct me but the example of my neighbors, there is no doubt that I should now be more than a thousand dollars worse off than I am at present; and all for the sake of saving a dollar or two a year.

MODEL FARM OF NEW JERSEY.

As the farm of Professor Mapes is regarded as a pattern, the following account of it, which he has given in the Newark Daily Advertiser, will be read with interest and profit. It shows the advantage of producing a large amount of manure, which may be accomplished by almost every farmer, and mostly with the resources of his own farm.

I would state that my success may be mainly attributed to the use of the subsoil plough and a proper system of manuring.

The land is a clayey loam, underlaid by clay ten inches thick, on a substratum of decomposed sandstone, and, until the clay was cut through by the subsoil plough, the surface was too wet to be productive.

It may not be uninteresting to your correspondent to know the different methods adopted for the manufacture of this manure. The chloride of lime and carbonate of soda is made by slaking three bushels of shell lime, hot from the kiln, with one bushel of common salt dissolved in water. Common salt being composed of chlorine and soda, the lime combines with the chlorine, forming chloride of lime, which, in turn, receives carbonic acid from the atmosphere, and becomes carbonate of soda. This mass should

be turned over every other day for ten days, at the end of which time it is ready for use. Four bushels of this mixture, thoroughly diffused through one cord of muck, will decompose it perfectly in ninety days in winter, and in a proportionately less time in summer.

When this muck cannot readily be procured, any other organic matter will answer the same purpose: pond scrapings, river mud, decayed leaves, or even head lands, with one twentieth its bulk of stable manure, or weeds, will answer well.

My stables are arranged thus: Under the oxen, cows, &c., the earth is removed to the depth of eighteen inches, making a space capable of holding a half cord of muck for each animal. This muck is covered at night with salt hay for bedding, and the liquid manure voided by the cattle is absorbed by the muck, and rapidly decomposes it. This decomposition is assisted by the warmth of the animal while sleeping upon the bedding. The solid manure is removed from the bedding each morning, and, after being mixed with twenty times its bulk of muck, is placed under cover. The muck, containing the fluid portions of the manure, is removed every four days, and is also placed under cover: after ten days the manure heap is turned over, and wetted with a weak solution of nitrate of soda, after which it is permitted to remain until sufficiently decomposed for use — thirty days.

All the weeds of the farm are daily thrown into the hog-pen, and the hogs are induced to root among them, to obtain which they keep the weeds in continuous motion until decomposed. About once in ten days, the pen is emptied; and, after salting the weeds to prevent the possibility of their again germinating, they are mixed with twenty times their bulk of muck, and four bushels to the cord of the salt and lime mixture, and placed under cover, where the mass readily heats, and, after twenty days, is ready for use.

These manures, with the occasional use of special manures for special crops, selected with reference to their chemical components as compared with the requirements of the plant desired to be raised, constitute the manures used.

The amount of manure I am enabled to make by the above methods, and the assistance of six oxen, three cows, three horses, and twenty hogs, is about fifty half cords per week.

The subsoil plough is no less important than a sufficiency of manure, and without its assistance no great results can be obtained.

The capacity of soil to perfect vegetables, is precisely in proportion to the quantity of its particles presented to the action of the atmosphere for oxydation; and not one of the most inconsiderable uses of manure is to leave space by its decay for the admission of the atmosphere.

To bring about these conditions, deep ploughing is necessary; and to avoid bringing subsoil of a sterile quality to the surface, while disintegrating to a great depth, the subsoil plough must be used.

My surface plough may be used to turn a furrow of any depth between four and twenty inches, the depth of action being regulated by the guide-wheel. We always use this plough at one inch greater depth than the thickness of surface soil; thus, if the surface soil be fourteen inches deep, the plough is set fifteen inches. One inch of the subsoil is thus brought to the surface at each ploughing, and, by the action of the sun and atmosphere, is gradually converted into loam.

The subsoil plough follows in the bottom of the furrow left by the surface plough, and is usually set at not less than seventeen inches: this plough is so constructed as to throw up nothing, but merely to disintegrate the soil at this great depth, replacing it where taken from without mixing it with surface soil.

The advantages, beyond the admission of atmosphere, are, that in dry weather the roots can pass down below the sun's more immediate action, and obtain moisture; and in wet weather the excess of moisture can pass down through the subsoil out. If the land is thus kept free from excess of moisture, it can never become cold or sour. After one thorough subsoil ploughing, the land can be worked for much less expense, and is ready for use at an earlier date in the spring.

My seeds being all planted by a drill-harrow, and the rows of plants consequently equidistant from each other, they can be cultivated and weeded by a horse cultivator, instead of using the slow and expensive hand hoe.

Should your correspondent think proper to visit me, I shall be happy to answer any other question he may wish to propose.

Yours respectfully,

JAMES J. MAPES.

FOREST TREES.

This subject is now claiming great attention, and the present generation, ere long, will be as busy in renewing the forest, as were the first settlers in destroying it. Since many parts of the country have become so barren from the destruction of forest trees, it becomes an object to renew them for their shelter and shade, and the beautiful adornment of the landscape; and besides this pleasurable inducement, trees are becoming an important object of profit from their value for timber and fuel. We copy the following judicious remarks from the ninth volume of the *Albany Cultivator*:—

It must be a subject of astonishment to observe the wonderful intermixture, and seemingly inseparable connection, between moral and physical good and evil; to see that the same thing which we at one time dread with abhorrence, at another time, and perhaps under a little different circumstance, becomes a subject of pleasing admiration. We often hear heart-rending tales of the gloomy and dismal forest; and yet, to a person of good taste, there are no charms, within the compass of nature's works, surpassing those of the forest.

The emigrant to an unsettled country, looks upon the trees as so many savage enemies, which he must conquer and exterminate before he can hope for the enjoyment of peace and tranquillity. When other emigrants settle around him, and they begin to direct their united efforts towards arriving at a state of civilization, they see nothing in their mind's eye but cultivated fields, with meadows and pastures, with all the stumps eradicated, and not a single cluster of trees to interrupt the view. If a single patch is left for wood, it is often sneered at, as it is cheaper to buy wood than to devote the ground to its incumbance.

But the population increases, perhaps becomes a city. The demand for firewood increases, and timber is wanted in all the various branches of ship and house building, and every patch of forest vanishes before the footsteps of cultivation, like patches of snow before the vernal sunshine, until, as is the case in some countries in Europe, and even in some parts of this country, every piece of timber has to be brought from a great distance, if not imported from a foreign country, and coal dug from the earth for fuel.

In this state of things, sober reflection, which, though a slow, is often a correct teacher, shows us, by costly lessons, what it would have taught before, had it been consulted,—that if, instead of wastefully destroying and exterminating the forest trees, they

had been used with prudent economy when necessary, and skilfully managed and preserved when not, they might have contributed largely to pleasure and to profit. The same follies have been extensively committed by other nations; but they have long since discovered their error, and are in many instances setting us examples, in many cases worthy of imitation, in retrieving it. If we profit by their examples, it is still in season to avoid the error in many parts of our extensive dominions; and where it has already been committed, we can, by a judicious course, do much towards making amends in our own days, and avoid entailing on posterity a vast amount of unnecessary trouble and expense. The clearing of a country of forest trees produces, no doubt, atmospheric and meteorological changes more or less connected with health; but we choose to leave that part of the subject to those who are professionally the guardians of health, and to speak of it only as it relates to the common comforts and conveniences of life.

The uses of forest trees, to which we refer, are, shade, for fuel, for timber, and for protection against wind.

There is nothing in the compass of inanimate nature so interesting as trees. They speak a language to the heart of utter insensibility, which it cannot fail to understand. They awaken to recollection the memory of scenes long past, not only in the innocent sports of childhood, but often those of deeper interest. It must be noticed, by every observer, that even the brute creation feel a veneration for trees. A tree is a house, furniture: it may be made clothing, and even bread. "It forms part of every machine by which the genius of man has taught him to lighten the labor of his hand. There is that in a tree, considered as an individual work of the Creator, which may well excite our attention, and most amply reward our study."

For fuel, and more especially for timber, economy alone, without the aid of good taste, would, if consulted, be sufficient to plead for the preservation of forest trees.

But when the folly has been committed, and its consequences are beginning to be sensibly felt, what remedy can be applied, if not to afford immediate relief, at least to prevent posterity from suffering by its effect? The still small voice of common sense, confirmed by the example of several nations of Europe, points out the remedy.

The first step is, to establish nurseries, where all the most valuable trees could be obtained at moderate prices; a few would avail themselves of their advantages, and the force of example would soon excite the multitude to follow them, and in a few years those who lived to see our dwellings, which now stand as unornamental as milestones, tastefully surrounded by beautiful trees, and their value doubled in the eye of most purchasers, they would see the public roads lined with extensive rows of valuable trees, and last, of farm houses, would be sheltered in their situations from bleak and destructive winds by belts of the pine and fir-trees, and their cattle and sheep would find protection in winter, and places of repose from summer heat.

MILK AS AN ARTICLE OF DIET.

It is common to regard milk as little else than mere drink. But this is an error. Milk is really an article of solid food, being coagulated soon after reaching the stomach. New milk contains 13 per cent. of digestible solids, and skimmed milk 10 per cent.; that is, the former fully one half, and the latter above a third, of the nutriment contained in the lean part of beef and mutton.—*Am. Agriculturist*.

Domestic Department.

FRUITS.—Many farmers do not consider the importance of fruits, or, owing to their having much other business on hand, they neglect them. Let the neglect be from what cause it may, the good lady of the house should take hold of the subject and encourage the business, and assist all in her power—and that is a great deal—in having a spot of land well prepared and set with fruit trees. In many cases, ladies take the principal management of the fruit garden, and we never knew a case of the kind that was not successful.

In attending to this subject, it is best to select a few of each species that have, from thorough trial, proved to be excellent. After this is accomplished, it is well to try some of the new kinds of high pretensions; but avoid running into too many experiments, as some of them may be unsuccessful, and discourage beginners.

We need not speak of the advantages of fruit, as a delicious luxury, as a valuable ingredient in food, and often constituting of itself a valuable dish. On health it has an important effect, which alone is sufficient to recommend its general use. With a plenty of good fruit, properly prepared, children want but little meat, or butter, and their food will be far more healthful. Its use may also be recommended on the score of economy.

Every family that has a spot of land sufficient for fruit trees or grape vines, should give attention to their culture, that they may have fruit fresh from the trees, and the pleasure of eating the fruits of their own industry.

FEMALE CULTURE.—The great entertainments of all ages are reading, conversation, and thought. If our existence after middle life is not enriched by these, it becomes meagre and dull indeed. And these will prove sources of pleasure just in proportion to previous intellectual culture. How is that mind to have subject matter of pleasurable thought during its solitary hours, which has no knowledge of the treasures of literature and science, which has made no extensive acquaintance with the distant and the past? And what is conversation between those who know nothing? But, on the other hand, what delight is that mind able to receive and impart, which is able to discuss any topic that comes up, with accuracy, copiousness, eloquence, and beauty! The woman who possesses this power can never fail to render herself agreeable and useful in any circle into which she may be thrown; and when she is so, she cannot fail to be happy. A full mind, a large heart, and an eloquent tongue, are among the most precious of human things. The young forsake their sports and gather around, the old draw nigh to hear, and all involuntarily bow down to the supremacy of mind. These endowments add brilliancy to youth and beauty, and when all other charms are departed, they make old age sacred, venerable, and beloved.

HOW TO MAKE CREAM CHEESE.—For two cream cheeses, take six quarts of new milk and one of sweet cream, to which add two or three spoonfuls of rennet, and let it stand until sufficiently firm; spread a

linen cloth in a large basin of cold water, lay the curd gently on it, tie the cloth, and hang it up to drain, for four or five hours, in a cool place; then change the cloth, and put the curd into a vessel the circumference of a common plate, and press it moderately six or eight hours, when it must be taken out, turned, and split horizontally with a thread; lay the cloth between the two cakes, and again put them in press for twelve or fourteen hours: if then pressed enough, which can be ascertained by their firmness, keep them in fresh grass a few days, turning them morning and evening. The price of these, about the fill of a common dining plate, is twenty-five cents.

It is wonderful what a variety of forms and dishes a good housewife will learn to make in the country out of a few simple materials, to tickle the palate of the "lord and master," and leave him without any *honest* excuse to be tired and out of humor with his own home and fireside!

Boys' Department.

For the New England Farmer.

INDUSTRY.—Boys should be industrious, busy, and active, ever desiring and aiming at improvement. Happiness and success in life depend upon this; usefulness in the world—an object worth living for—is greatly promoted by an economical appropriation of our time. Spare moments—the golden sands of life—should all be turned to good account. Much is to be learned, and more, if possible, is to be accomplished. Time, even if lengthened beyond our reasonable expectation, is not too long to be appropriated to those virtuous uses which the Great Dispenser of all our blessings requires of our hands.

When not actively engaged in bodily labor, let the mind take its alternate turn at some laudable object or useful purpose; even then, when the muscles are in action, the higher organization of thought and mental application may not remain idle; mind may, and should, predominate over matter; therefore let the faculties of the soul expand and mount upward on the rapid wings of improvement and a legitimate and rational system of enjoyment. J.

POLITENESS.—Be polite at all times, and to all persons. Remember that you will lose nothing by thus doing; you will be more respected, and certainly more beloved, than you will be if you are in the habit of answering in an abrupt or unkind manner. It will also render you *happier* to do this; for if polite yourself, you will generally meet with politeness in return; and if you do not, you will still have the inward consciousness of having yourself acted correctly.—*Well-Spring.*

Health.

REMEDY FOR A COUGH.—Mr. Charles Pierce, of Milton, a farmer, of about fifty-seven years of age, informs us that for several winters past he had been afflicted with a severe cough, which continued notwithstanding various medicines were used. As warm weather came on, in spring, his cough abated.

The past winter, he was troubled, as usual, with a cough; and he resolved to try a new remedy. Accordingly, he commenced clearing up a piece of land,

on which were whortleberry and other small bushes, and in which there were numerous small stones.

The snow was about a foot deep : this he shovelled off, then cut the bushes, and dug the stones, as the ground was not frozen hard. While operating, he turned up the fresh and pure soil, which he often took up; and with his mouth wide open, and close to the soil, he inhaled the scent of the fresh earth, and, persevering in this course till he had cleared half an acre of land, he found himself strong and hale, having got entirely rid of his cough.

A few days ago, he was in our office, looking robust and healthy; and he had walked from Milton, a distance of seven miles, intending to return in the same way, preferring walking to riding.

Here is an important lesson. We have no doubt that the scent of that fresh earth had more remedial power than all the nostrums and doses of the apothecary's shop, simple, or compounded with the greatest scientific skill.

It may be said that the exercise was a help in this case; and it doubtless was an auxiliary, as it was regular and various, affecting all parts of the system, and the chest in particular. But it should be considered that Mr. Pierce is an industrious man, and does not suffer for want of exercise; yet that afforded in clearing land might be more congenial to health than the labor to which he usually attended.

So we credit a part of the remedial means to the better exercise, and we will also credit something to the expansion of the lungs, by long and strong inhalations, which gave them full play, and tended to strengthen them. After deducting these credits, and any others that may be suggested, we think much will be left in favor of the pure earth. We have generally found that labor in the soil is the most invigorating and healthful of all exercises.

CURE FOR RHEUMATISM. — We recommend the following recipe, which will be found, upon trial, to be a simple, still an invaluable remedy for rheumatism. Take a pint of the spirits of turpentine, to which add half an ounce of camphor; let it stand till the camphor is dissolved; then rub it on the part affected, and it will never fail of removing the complaint. Flannel should be applied after the part is well fomented with turpentine. Repeat the application morning and evening. It is said to be equally available for burns, scalds, bruises, and sprains, never failing of success. We can vouch for its efficacy in rheumatic affections, as a tried remedy.

Mechanics' Department, Arts, &c.

PLATINA METAL. — This very little known metal was formerly more valuable than gold. But the platina mines of Russia have furnished such an abundance of the ore, that it is now next to gold in value. It is a metal of whitish, silvery color, the heaviest, the most difficult of fusion, the most ductile, and the most flexible of the known metals, having a specific gravity of 21.5, and capable of being hammered into leaves, or drawn into wires, of extreme tenacity. Its hardness is intermediate between that of copper and iron; and though very infusible, it is

malleable, and capable of being welded at a white heat, either one piece to another, or to a bit of iron or steel. It is not in the least affected by the air or water, and it is not attacked by any of the pure acids; but is dissolved by chlorine and nitromuriatic acid.

In beauty, ductility, and indestructibility it is hardly inferior to gold. When a perfectly clean surface of platinum is presented to a mixture of oxygen and hydrogen gas, it has the extraordinary property of causing them to combine, so as to form water, and often with such rapidity as to render the metal red hot. Platinum was discovered about 1741; but it attracted little notice until the mode of purifying it and rendering it malleable was discovered by Dr. Wollaston. It is found in the metallic state in Brazil and Peru; at Antioquia, in South America; Estremadura, in Spain; and latterly, in considerable quantities, in the Uralian Mountain, and in California. Its appearance, in the rough state in which it is imported, is that of small grains or scales, of a metallic lustre, darker than silver, and extremely heavy. In this state it is combined with palladium, rhodium, titanium, iron, gold, or other metals. The particles are seldom larger than a pea, but pieces have been found as large as a hazel-nut; and in 1831, a mass of native metal was discovered in Demicloff's gold mines, in Russia, weighing upwards of twenty pounds.

The perfection with which vessels of platinum resist the action of heat and air, of most of the acids, and of sulphur and mercury, renders them peculiarly valuable in many chemical applications; so that, notwithstanding the high value of the metal, which is between four and five times its weight of silver, it is now much employed for crucibles, retorts for the distillation of sulphuric acid, mirrors for reflecting telescopes, by gunsmiths and others. Its property of being welded, either one piece with another, or with iron and steel, admits of many useful applications in the arts. From its scarcity and indestructibility, it has been proposed to use it for coinage; and we believe coins of the respective values of three, six, and twenty silver roubles are now current in Russia.

IMPROVEMENTS ON WINDMILLS. — Mr. Charles B. Hutchinson, of Waterloo, Seneca Co., N. Y., has recently made some valuable improvements on windmills, both for self-regulating and reefing the sails. A common governor is used for the regulating of the angle of the sails to the wind; but this is employed in a most judicious and novel manner for retaining the ends of the booms in slot when necessary, at an angle reverse to the allowing of the sails to present the square of their surfaces to the blast. This mode of self-regulation has been completely successful in practice during the most fitful windy days of this autumn. — *Genesee Farmer.*

THE TEA PLANT IN THE UNITED STATES.

The planters and farmers of the Southern States will be gratified to learn that seven cases of black and green tea plants, Chinese stock, have just arrived from London in the ship American Eagle, shipped by Dr. Junius Smith, during his late visit to that city. There are five hundred plants, of from five to seven years' growth. All are designed by the doctor as seed plants. A small quantity of tea seed was brought out by him in the steam ship Britannia, which was received in London overland from the north-west provinces of India. We understand the doctor designs to proceed soon to the south, with a view of forming a plantation. More plants and seed are expected from India and China this season; and

if we may judge from the progress already made, we have now the means in hand of extending tea plantations throughout such sections of our country as may be found adapted to their cultivation. — *Journal of Commerce.*

EXPORTATION OF COWS.

Maine has long been a stock-growing state, and one of her staple products has been neat stock, thousands and thousands of which are driven away every fall. The heavy oxen are mostly driven east, into the provinces, for beef, and to be used in the lumber business. The lighter cattle and stores are driven to Brighton and there sold. Recently we met with a gentleman from Springfield, Mass., who was in pursuit of first-rate cows. He understood the properties of a good cow, and could read one with great accuracy. He started last week with a small drove, which he had collected in the towns of Winslow, Waterville, Belgrade, &c. They were prime animals, and will report themselves favorably to the farmers of the Old Bay State. Here, then, is opened a new branch of the stock trade, viz., the rearing of first-rate milkers for sale, to supply the milk farms of other states.

In order to follow this successfully, it will be necessary to pay more attention to the milking properties of the breeders, and to breed from those that have proved themselves good milkers. The principles of breeding cows for great milking qualities are not so well understood as those for breeding for beef. The qualities and points which make an animal excellent for the latter are more tangible, depending on the peculiar conformation and arrangement and shape of different organs. This is not wholly the case with an animal for milking qualities. True, the form and position of certain organs are indicative of these properties; but there are also certain physiological principles involved in the formation of large quantities of rich milk, that are not always manifest to the casual observer. — *Maine Farmer.*

CLIPPING HORSES.

Clipping undoubtedly enables a horse to perform his work with greater ease, in the same way that a man can work easier in his shirt sleeves than in a great coat; besides this, he can be dressed quicker and more readily. Extra clothing is required, and the horse should not stand about in cold weather. Where, however, he is obliged to do so, singeing is better than clipping, as it does not remove so much of the coat, but can be repeated during the winter. — *Ag. Gazette.*

CURE FOR SCRATCHES ON HORSES.

Feed a horse one or two tablespoonfuls of sulphur per day, (in order to cleanse his blood,) for three or four days, wash the feet in clean, soft water, then put on dry sulphur, and wind a linen cloth around the sore, and twice or three times a day drop in dry sulphur between the cloth and the sore. Be careful to keep the feet dry, as it is of no use to doctor the feet until the blood is put in order. This seldom fails in the worst cases.

SEASONS FOR FELLING RESINOUS TIMBER.

In cutting timber, of all kinds, advantage should be taken of the season which will favor their duration and strength. Thus oak and most other kinds of non-resiniferous trees, as far as the knowledge of

practice extends, are stronger and more durable when felled in early winter, at the time the pores contain but little sap. On the contrary, the timber of pine, larch, and other resinous trees, cut in spring or early summer, when the pores are filled with resin, which is, in fact, a sort of embalming, possesses a greater degree of strength, and will endure longer, than if cut when the resin is absent from the wood, which is more or less the case in autumn or winter.

We have no hesitation in stating, that good heart pine, cut in spring, or early summer, when full of resin, is fully equal in lasting qualities to any hardwood timber that can be produced, quite putting in the shade the processes of Payne, Kian, and Burnett, from the efforts of nature being more freely carried out than can possibly be done by the very best exhausting engine and hydraulic presses that have yet been made. — *American Agriculturist.*

TEXAS WHEAT.

It is stated by a gentleman from Corsicana, in Limestone county, that about forty thousand bushels of wheat have been raised in Navarro and Limestone counties this season. A part of this was harvested as early as the 9th of May, and it is of an excellent quality. The grains are plump and large, and the wheat, it is believed, will average over sixty pounds to the bushel. A large quantity of wheat has been raised in Trinity Valley, above Dallis. The experiments in the culture of this grain indicate that the whole region, watered by the Trinity and its tributaries above Smithfield, is as well adapted to the culture of wheat as the best wheat-growing regions in the Middle States. The soil, in this section, contains a large proportion of lime; and it is probably owing to the presence of this mineral that it is better adapted to the culture of wheat than the soil near coasts. There is a belt of country extending quite across Texas, from the Red River to the Rio Grande, and including most of the undulating region of that country, that is as well adapted to the culture of wheat as any portion of the Union. This section comprises at least thirty millions of acres, and may, at some future day, yield bread stuffs sufficient for the consumption of more than ten millions of people. — *Lancaster (Pa.) Farmer.*

IMPROVEMENT OF VARIETIES.

A writer in the Gardener's Chronicle gives some interesting results of experiments in improving the varieties of vegetables. He began with long pod beans. He took for seed none with fewer than five seeds in a pod. The following year there were many six-seeded pods, and some with seven. Still selecting the best, he procured many six and seven-seeded pods, and some with eight. In this way new and distinct varieties were formed; for while some remained with five-seeded pods, it was found that they rarely had a six-seeded pod upon them; while those with six-seeded pods were nearly all so, and some seven-seeded. New varieties are only produced from seed; hence the importance of a constant care in selection in all crops which are annually reproduced in this way. A skilful market gardener, in Western New York, by constantly selecting the earliest seeds of the Washington pea, in a few years had them more than a week earlier than his neighbors, who cultivated the same variety. Plants not reproduced by seeds, as the potato by eyes or tubers, and fruit trees by grafts and buds, remain perfectly unchanged for ages; for this is only a continuation of the same original plant, which cannot change its own being. — *Albany Cultivator.*

OSAGE ORANGE.

Agreeably to request, we lately published an article on the use of this plant for hedges, and we inquired as to its hardiness; since that time, we have heard from several places where it has been cultivated in New England, and it is found too tender for the cold of this climate. It has also been killed by the winter on Long Island, N. Y. Mr. Downing, in his *Horticulturist*, gives an opinion that it will endure the cold as far north as the Isabella grape will ripen; but we think, from the few experiments that have been made, that the Osage orange will not bear extension so far north as the Isabella, for this is the principal grape cultivated in this region.

HOW TO ENLARGE VEGETABLES.

A vast increase of food may be obtained by managing judiciously and systematically carrying out for a time the principles of increase. Take, for instance, a pea. Plant it in very rich ground; allow it to bear the first year, say half a dozen pods only; remove all others, save the largest, the following year, and retain of the produce three pods only; sow the largest the following year, and retain one pod; again select the largest, and the next year the sort will by this time have trebled its size and weight. Ever afterwards sow the largest seed, and by these means you will get peas, or any thing else, of a bulk of which we at present have no conception.

CULTIVATION OF THE RASPBERRY.

The plants are frequently set out in light and poor soils, crowded together, left untrimmed, choked up with a profuse growth of weak stems; and what little fruit they produce is nearly dried up, from the arid situation in which they were placed. On the contrary, in cool, deep, and moist soils, in a sheltered and partially shaded place, the plants throw up suckers to the height of six or eight feet, and produce a profusion of large, handsome, and well flavored berries. So well assured are the most eminent English cultivators of the raspberry, of its love of a cool and moist soil, that some writers have strenuously recommended the use of bog earth and rotten leaves, in the place of richest loam. We are well assured that the many complaints which are made of the meagre produce of many raspberry plantations, may be attributed wholly to the light and droughty soils in which they are often planted.

A cool aspect is of material consequence; and to secure this, the north side of a fence or trellis, which will form a screen from the sun, is the most favorable; on the north side of the shrubbery or row of fruit trees, is also a suitable place. If neither of these situations is to be had, an open spot in the garden may be chosen, always being careful to avoid the south or east side of the fence. A temporary shade may be effected in the open garden by planting a row of running beans on the south side. — *Hovey's Magazine of Horticulture.*

A HINT TO OWNERS OF HOTHOUSES.

"Give me air, or I shall die!" is an exclamation which most people have heard occasionally, but which a gardener might listen to every hour of his existence, had he skill to interpret the language of plants. "Give me air, or I shall die!" is incessantly

repeated by every leaf in ninety-nine hothouses, greenhouses, conservatories, hibernatories, and pits, in a hundred, all over the world. But the voice is unheard; the pale looks, the feeble frames of the sufferers are disregarded; heat is offered as a substitute for air, and the duties of horticulture are thought to be fulfilled when a blanket is wrapped round a patient perishing with suffocation.

PREPARATION OF CLOVER SEED.

We have received two communications from Joseph Warbasse, of Newton, New Jersey, on his mode of preparing clover seed for sowing, by which the writer calculates he makes a saving of one half the seed required. Mr. Warbasse's process seems to be predicated on the assumed fact, that ordinarily more than one half of the seed does not germinate, either from the want of moisture to swell it, or of gypsum, the presence of which he considers essential to stimulate the germinating principle. Mr. Warbasse is probably right in saying that one half the clover seed sown does not come up; he is strengthened in his supposition that much of it remains dormant in the soil, by the fact he states, and which is of common notoriety, — that plaster sown on light lands will bring in clover, where no seed is sown at the time. Mr. Warbasse's remedy for the evil is, to saturate and swell the seed thoroughly in soft water, to which a small quantity of salt is added, and after it becomes well saturated, to coat it with gypsum, &c., the effects of which seem to be to prevent the escape of moisture which the seed has imbibed, and thus insure its germination and growth. A further advantage may be, that the salt imparts fertility to the soil which comes in immediate contact with the seeds, and causes a more vigorous growth. Such seems to be the philosophy upon which Mr. W.'s practice is founded. We give the process of preparing the seed in his own words.

"The seed is to be made thoroughly wet with a strong pickle from your pork cask; let it remain in a heap one day; then spread it about one or two inches thick on a dry floor, and in a few days a crust of salt will be formed on each grain. When you wish to sow it, moisten it again with pickle, spread it over a floor, and put on about three quarts or more of gypsum to a bushel of seed; mix it well, and keep it moist in a cellar until you sow it." — *Yankee Farmer.*

NEW INVENTION.

An acquaintance of ours in this city, who is quite a bee-fancier, and has closely observed and studied their habits for several years, placed a new swarm in a hive of his own construction on the 25th of June last. This hive is made to conform to the natural habits of the insect in its wild state; is of the usual form, but closed at the bottom with a close-fitting lid covered with wire cloth, about eight meshes to the inch. This allows all the dirt and chips of comb made by the bees to sift through, and admit sufficient air for ventilation. It is hung on butts, and can be opened to brush off any dead bees, or any other substance too large to fall through it. Near the top, directly over the drawers, is an inch auger hole, for the passage of the "workers." This aperture, being at the top of the swarms, has always a cluster of busy bees about it, so that no miller can enter; and as there is no other mode of ingress, our friend thinks that the hives may be kept from worms, which are the great enemy of the apiary. Nothing larger than an ant can go through the wire bottom, and they are easily kept away by salt. The swarm in the hive is the most busy its owner ever witnessed;

and as evidence of this, he finds the hives on the tenth day two thirds full of comb — nearly double what is usual for so late a swarm.

RASPBERRIES.

S. A. Barrett, of Milton, N. Y., asserts that "a strong deep loam, with but little sand, is the only soil from which a full crop is to be expected every season from the Red Antwerp." He also states that N. Hallock, of that place, produced a crop the past season, from three fourths of an acre, which sold for \$330 in New York city.

FACTS IN PHYSIOLOGY.

A man is taller in the morning than at night to the extent of half an inch, owing to the relaxation of the cartilages. The human brain is the 28th of the body; but in a horse, only the 400th. Ten days per annum is the average sickness of human life. About the age of 30, the lean man generally becomes fatter, and the fat man leaner. Richter enumerates 600 distinct species of disease in the eye. The pulse of children is 180 in a minute; at puberty, it is 80; and at 60, it is only 60. Dr. Lettom ascribed health and wealth to water, happiness to small beer, and all diseases and crimes to the use of spirits. Elephants live to 200, 300, and even 400 years. Bats, in India are called *flying forces*, and measure six feet from tip to tip of their wings. Sheep, in wild pastures, practise self-defence by an array, in which rams stand foremost, in concert with ewes and lambs, in the centre of a hollow square. Three Hudson's Bay dogs draw a sledge loaded with 300 pounds fifteen miles in a day. One pair of pigs will increase in six years 119,160, taking the increase at fourteen times per annum. A pair of sheep in the same time would be but 64. A single house fly produces in one season 20,030,326 eggs. The flea, grasshopper, and locust jump 200 times their own length, equal to a quarter of a mile for a man.

THE PURITY OF DIFFERENT KINDS OF SALT.

Prof. Beck, of Rutgers' College, has made the following analysis of the different kinds of salt:—

1000 parts Onondaga coarse salt contain pure salt 991 parts.

1000 parts Onondaga dairy salt contain pure salt 974 parts.

1000 parts Turk's Island salt contains pure salt 984 parts.

1000 parts Cheshire crushed rock salt contain pure salt 986 parts.

If this be true, why is it that farmers and beef and pork packers still prefer Turk's Island, or Liverpool, Cheshire, salt? This fact is notorious. If Onondaga salt was better, would they not find it out! — *Buff. Com.*

We concur in, and repeat the inquiry above. If Onondaga salt is better than Turk's Island or Liverpool, why is it, that our farmers and beef and pork packers do not find it out? There must be some mistake in this matter. Perhaps it is in the frauds practised in its manufacture or packing. If so, how can pure Onondaga salt be secured? We should like to know. — *Rochester American.*

"Swear not at all." Deceive not. Profanity and falsehood are marks of low breeding. Show us the man who commands the best respect — an oath never trembles on his tongue — a falsehood is never breathed from his lips.

THE FARMER'S DAUGHTER.

She may not, in the mazy dance,
With jewelled maidens vie;
She may not smile on courtly swain
With soft, bewitching eye;
She cannot boast a form and mien
That lavish wealth has brought her;
But, ah, she has much fairer charms, —
The farmer's peerless daughter!

The rose and lily on her cheek
Together love to dwell;
Her laughing blue eyes wreath around
The heart a witching spell;
Her smile is bright as morning's glow
Upon the dewy plain,
And listening to her voice we dream
That spring has come again.

The timid fawn is not more wild,
Nor yet more gay and free;
The lily's cup is not more pure
In all its purity; —
Of all the wild flowers in the wood,
Or by the crystal water,
There's none more pure or fair than she, —
The farmer's peerless daughter!

The haughty belle, whom all adore,
On downy pillow lies;
While forth upon the dewy lawn
The merry maiden hies;
And, with the lark's uprising song,
Her own clear voice is heard:
Ye may not tell which sweetest sings,
The maiden or the bird.

Then tell me not of jewelled fair —
The brightest jewel yet
Is the heart where virtue dwells
And innocence is set;
The glow of health upon her cheek,
The grace no rule hath taught her:
The fairest wreath that beauty twines
Is for the farmer's daughter!

THE OLIO.

If we would enjoy ourselves, we must take the world as it is — mix up a thousand spots of sunshine — a cloud here and there — a bright sky — a storm to-day, calm to-morrow — the chill, piercing winds of autumn, and the bland, reviving air of summer.

LONGITUDE. — "Tommy, my son, what is longitude?" "A clothes line, daddy." "Prove it, my son." "Because it stretches from pole to pole."

Why is a lady, while-decorating her fingers, like one in distress? Because she's *wringing* her hands.

Sophistry is like a window curtain — pleases as an ornament, but its true use is to keep out the light.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, APRIL 28, 1849.

NO. 10.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

AGRICULTURAL EDUCATION.

On the 13th, the last agricultural meeting was held at the State House. Hon. M. P. Wilder in the chair. Subject, Agricultural Education.

The president said, that the subject was of vital importance to the whole community, for on the success of the farmer the prosperity of all other professions must depend. The science of agriculture should be placed on a par with every other department of art and education. He alluded to the movement in the legislature of New York on this subject.

Hon. Mr. Calhoun remarked that the commonwealth of Massachusetts had liberally sustained schools, academics, and colleges, which were an honor to her, and a commendable spirit was now aroused on agricultural education, and this spirit may be relied upon in sustaining the cause of agricultural education. There is less difficulty in this than in other branches of education, now in successful operation in our state. We have schools for the instruction of the blind and the deaf, and establishments for improving the condition of idiots and lunatics. As farmers now enter upon their business without suitable instruction, a great deal of time is lost, and much is learned wrong by hasty observation. But if a right start is taken, they will not be subjected to a thousand experiments in order to learn what should be imparted by a good education. There is no calling in which science may be so successfully employed as in agriculture. Sir Humphry Davy wrote on agricultural chemistry fifty years ago, and he has been followed by Liebig and others of eminence, and much scientific knowledge had been disseminated in Europe, and there is no reason why we should not avail ourselves of the same advantages. In England and Germany agricultural schools are in successful operation, and their utility is acknowledged. As the young farmer turns up the sod, he knows not the elements that compose it, nor the manures it requires, nor to what crops it is adapted. A little accurate knowledge would be of great service to him. In our schools and seminaries of learning we get an education that fits us for every calling excepting that of the farmer. The subject has been before the legis-

lature, but they have done nothing in furnishing means as in the establishing other schools.

Hon. Mr. French, of Braintree, thought that the community were becoming alive to this subject, and there could be no question that there was a great want of accurate information, which our schools and colleges do not supply, as agricultural education does not enter into our systems of instruction. We should have agricultural schools where a young man may work on a good constitution and fit himself for pursuing his profession with pleasure and success. If a school was established, it would soon be furnished with a large number of students. At present, the great error at our seminaries of learning is, that students study too hard, and take too little exercise. In an agricultural school, exercise and study would be combined, imparting instruction and health.

Hon. Mr. Leonard, of the Senate, believed that an agricultural school would be a benefit to the commonwealth. He referred to the aid that agriculture had already received by means of the sciences.

Mr. Teschemacher, of Boston, believed that there was already too much education for the learned professions, and he was opposed to any more facilities for this purpose, until provision was made to educate the farmer to cultivate the soil from which he must get his livelihood, and learn its peculiar elements, and its adaptation to particular crops. He was opposed to doing any thing more for colleges until agriculture was represented in them. In England there is a great difference in the products of an acre of land, and mutton, butter, and other productions sell at very different prices. This is not the result of chance, but the application of greater skill in the production of crops. Every youth, who would get accurate knowledge of agriculture, should be furnished with advantages for this purpose.

Dr. Wilder, of Leominster, thought that every one could do something to give importance to agriculture, and impressing it early on the minds of children. Teachers and parents may do much by instructing children in the rudiments of agriculture, and thus lay a foundation for agricultural schools, where their education may be completed.

Deacon Grant, of Boston, had learned to estimate

the value of agricultural knowledge from the success attending the boys who had been instructed at the Farm School.

Hon. Mr. Gray, of Boston, was of the opinion of Dr. Wilder, that the young should be instructed in agricultural education. He thought that instruction in agriculture might be given in our colleges. We need works to teach the elements of agriculture.

On motion of Mr. Calhoun, it was *Resolved*, that it becomes the enlightened policy of Massachusetts to aid in furnishing to the people the means of a thorough agricultural education.

NOTICES OF PUBLICATIONS.

HOVEY'S MAGAZINE OF HORTICULTURE, for April, as usual, contains a variety of interesting matter. Mr. Hovey is among the most industrious and persevering pomologists in the country.

A PRACTICAL TREATISE ON THE MANAGEMENT OF FRUIT TREES, by George Jaques, published by E. N. Tucker, Worcester. This is a small work, containing useful directions, with a descriptive list of such fruits as the author considers adapted to the interior of New England. Even those who prefer more definite descriptions of fruit, and an account of the principal kinds cultivated in the country, will find valuable hints in this work on cultivation and management.

REPORT ON AGRICULTURE, by the committee on agriculture, in the New York Assembly. A valuable document, extracts from which appear on p. 159.

ACKNOWLEDGMENTS.

From Mr. Nathan Waters, Sutton, Beauty, or Sutton Beauty. This apple, in form, size, color, and season, is similar to the Baldwin. Yet it is of a more delicate and beautiful appearance, of fine texture, more mild and delicate in its flesh, which, in our opinion, renders it superior for the table. We have tried and described this fruit before, but we never made a fair trial of it, as we have not had it till too late in the season to judge accurately of its quality. We find that it is a stout, vigorous grower in the nursery. It is worthy of trial, and promises to be one of our most valuable winter apples.

Of Mr. George Phipps, Framingham, Winter Sweet apple. Medial size, round, ribbed, yellow, with a brownish red blush; flesh very firm, and of a pleasant, lively flavor, after long keeping.

Of Mr. Lewis Jones, Wayland, Jones's Sweet apple. Large, round, yellow, dull brown blush, of a pleasant quality. These noble apples make a fine appearance at this late season; but Mr. Jones says, that it requires high culture to bring them up to so fine a condition.

Of Mr. J. Waters, from his father, Stephen Waters, of Sutton, Sutton Export apple. Medial size, roundish oblong; yellow, russet, and red; flesh, very hard, of a pleasant flavor; but it is not sufficiently ripe to allow us to judge correctly of its quality. Mr. W. makes the following remarks on this fruit:—

Mr. COLE: I herewith send you some specimens of an apple which I have christened the Sutton Export, from the fact, that I think there are no apples now extant which are equal to this for exportation, or for holding their hardness and flavor to a very late period in the season. I have kept them without assorting over until August, when they would come out fresh and fair, with very few rotten, retaining all their qualities, as though they had but just arrived at maturity. They are, however, eatable as early as January, although quite hard. The tree is hardy and rugged, and I think peculiarly adapted to our New England culture and climate. It is a constant and prolific bearer, and such is the wonderful tenacity with which the fruit clings to the tree, that they successfully resist the storm and wind, and even the efforts of boys with clubs and other missiles are not sufficient to detach them. To make an attempt to eat the fruit in the fall would be in vain, for it would be almost impossible to make an indenture with the teeth; and in fact it is hard to bruise or make an impression upon them at this time of the year, which peculiarly adapts them to exportation. You will please have the goodness to test these apples thoroughly, particularly the flavor—how they will compare with others, &c., and oblige
S. W.

EXERCISE OF THE MIND.

Persons who are much employed in pursuits involving manual labor are apt to undervalue the necessity of exercising their minds more fully than the mere thinkings immediately connected with their pursuits. To such we would say, your power of applying your mind intently to any subject will be in exact proportion to the amount of exercise you have given it.

The arm of the blacksmith, or the leg of the dancing master, increases in size by its exercise, and the brain of the lawyer gains activity and strength from a similar cause.

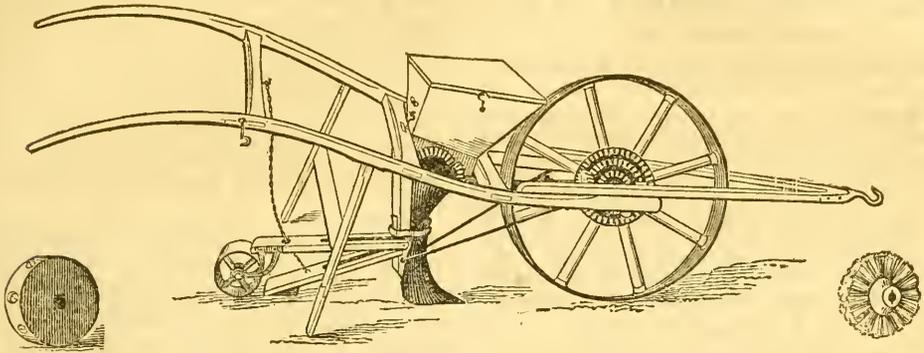
Even the eye may be improved in the exercise of its functions by use. Thus the artist and the dealer in dry goods both remember and observe colors with greater exactness than those not so employed.

Go to our prisons and observe those who have worked in silence for many years at some monotonous occupation, without the opportunity of listening to conversations, or of referring to books, without change of scene or other cause for the exercise of thought, and you will invariably find that they have lessened in the power of thinking; their memories, and indeed every quality of their minds, will be found to have deteriorated.

With such facts as these fairly ascertained, is it not both slothful and sinful for farmers to doze away their evenings in a sort of half-consciousness, and then retire to bed like tired beasts of burden, instead of spending a single hour, at least, each evening, in a healthy and proper exercise of their minds.

If this exercise have relation to the affairs of the farm, arising out of judicious reading, you will profit more by it than from a similar amount of bodily exercise. Indeed, its beneficial effects will pervade all your doings.

The necessity for this advice is rapidly passing away; but we all know that our industrious farmers have been too apt to over-labor and under think—excusing themselves for such negligence by urging their fatigue as the cause. Farms of any extent require that the person having them in charge should not so over-labor, as to have no time for thought. One hour per day, applied to reading agricultural improvements, will give rise to methods for saving more than the value of the time so spent, in addition to its beneficial effect on the mind.—*Working Farmer.*



THE IMPROVED SEED SOWER AND PLANTER.

A good seed sower is a labor-saving machine, of great utility to the farmer or gardener, who sows or plants many small seeds. With the ground well prepared, and a suitable machine, one hand will sow seed as fast as four or five men without a machine, and the sowing will be more uniform than that done by hand.

This machine is light, and it is pushed forward by the operator; the ground is opened, the seed dropped, covered, and rolled, in one operation or passing. This useful implement is adapted to seeds of various sizes; to sowing seed thinly, or plentifully, as desirable; and the rows or drills may be of any distance apart.

By change of cylinders, this apparatus may readily be adapted to large or small seeds. The gearing, for the purpose of producing a rapid or slow motion, in order to adapt the machine to different kinds of seed, is very simple, yet excellent, as it will sow continuously in drills, or drop in hills. This gearing is made of iron, with graduated rows of cogs, and it works with great precision; it is very durable, and not liable to get out of order.

BLACK POLAND TOP-KNOT FOWL.

These, like the brave people from which they derive their name, are every way commendable, and are recommended to the "chicken fancier."

The Poland fowls, as they are generally called, were, according to English authors, said to be imported from Holland. Their color is a shining black, with a white top-knot of feathers, on the heads of both cock and hen.

The head is flat, and surmounted by a fleshy protuberance out of which springs the crown of feathers, or top-knot, white or black, with the fleshy King David's crown, consisting of four or five spikes. The true breed is rather above the middling size; their form is plump and deep, and the legs of the best sorts are not too long, and most have five claws. The contrast of the perfectly white crest with the black plumage is truly beautiful; but the top-knot of the cock differs from his hen, hers being broad and erect feathers, while his are narrower and hanging down in every direction.

Mowbray says, "The Polanders are not only kept as ornamental, but they are of the most useful varie-

ties, particularly on account of the abundance of the eggs they lay, being least inclined to sit of any other breed, whence they are sometimes called *everlasting layers*, and it is usual to set their eggs under other hens. They fatten as quickly as any other breed, and in quality similar to the Dorking; their flesh perhaps more juicy, and of a richer flavor." They are a quiet, domestic fowl, neither quarrelsome nor mischievous, and their eggs of good size, fine flavored, and thin shells. — *Bement's Poulterer's Companion*.

Howard B. Coffin, Newton Corner, has a lot of the above named fowls, and can furnish eggs to any one who wishes them for hatching, if their orders are left at No. 5 Congress Square, Boston. — *Com*.

THE APRICOT.

"Does the apricot produce fruit without budding?" We supposed that it was generally known that apricots would produce fruit without budding, in the same manner as other fruit trees. In this vicinity are a number of apricot trees, of superior quality, that have not been budded. The opinion that the apricot does not yield fruit without budding may have arisen from the numerous failures in this species. The buds are very liable to be killed in the cold season. It flowers very early, more so than other fruit trees; hence the blossoms are liable to be killed. If the buds and blossoms escape injury, the curculio is liable to sting and destroy the fruit at an early stage.

SECKEL PEAR.

It may be a matter of interest to nursery-men and fruit-growers to know that the original Seckel pear-tree, the parent of all the Seckel pears in the United States and in Europe, is still standing — a venerable inhabitant of a meadow belonging to the city of Philadelphia, in Passayunk, on the Delaware River, near the mouth of the Schuylkill, three and a half miles below the city. It is a large tree, about thirty feet high, and measuring six feet in circumference a foot from the ground. The trunk, however, is much decayed, and it is thought that it cannot long withstand the wintry winds that annually sweep over the peninsula between the Delaware and Schuylkill Rivers. — *Valley Farmer*.

For the New England Farmer.

THE COUNTRY FAVORABLE TO LOCAL ATTACHMENTS.

An Extract from "The Farmer's Every Day Book" — in Manuscript.

It may be assumed as an hypothesis of undoubted reality, that, all other things being equal, local attachments are in proportion to their duration. Let this rule be applied. A family living in a house a year becomes attached to it more than living in it a month; living in it five years, more than living in it a single year; and for life, proportionably more than for five years. And, especially if the same place is tenanted by successive generations of the same family, how wonderfully developed becomes the tendency of our nature of which we are speaking! If there is any thing in this world that rationally binds one's affections to it, if there is any thing that imparts a philosophical dignity to life, it is living for successive years, or through life, in competence and without solitude, sharing with the same dear family circle the mansion of a past generation. What varied associations cluster around the fireside and the household altar! The hours of morning twilight, the pensive and the mellowed shades of evening, and no less the dark watches of midnight, are alike flooded with soothing recollections.

In the country, upon the tidy and well cultivated farm, such associations and such recollections convert the whole of surrounding nature into a fairy scene, on which the imagination never becomes wearied. If the starry and the moonlight heavens any where shed over the human sensibilities a delightful emotion, it is here! If a landscape of hill, and dale, and waving shadow, any where captivate the eye, it is here! If the murmuring rill, and the falling cascade, and the distant echo of some disturber of midnight silence, any where send a thrilling pathos to the soul, verily it is here! Here the children were born! Here, amidst pure breezes and serene skies, they are nurtured in body and mind! Here, in God's first temple, they are taught to lisp his praise! Here, away from the loathings of vice, they receive the elements of useful knowledge! Here, in rustic simplicity, their manners are formed! Here, always at home, what can diminish the vigor of their natural affections?

It is difficult to imagine what there is in the city, analogous to all this, to operate on the social affections. Persons of sufficient means, in the city, may, and do, occupy good houses; sometimes it may be princely mansions, provided also with expensive furniture; but is there any thing in such establishments to produce this strong local attachment? It appears to us that such establishments produce about the same effect on the mind of the occupants, so far as our present subject is involved, as the gilded scenery of the playhouse. A sensation of delight is felt at the moment; but with the occasion it is all forgotten. How can it be otherwise? They have no permanent interests there. They can feel no possible identity with them. They live in one house one year, in another the next year, and so on through life, leaving each in turn with as little thought or regret as they would step out of a railroad car in which they had journeyed a few miles. Their furniture also, instead of being preserved for a lifetime, and cherished with affection as in the country, is cast aside, and new substituted in its place, with the unconcern of casting away a pair of old shoes. In going from house to house, they go from street to street in the same unconcerned manner.

Now, is it possible that, in such a whirl and change, in such a perpetual transition from place to place,

there can be any local sympathies? And, if the local sympathies do not arise, their intended influence is not felt. Hence, under such circumstances, these auxiliary agencies in producing the delights and the moral influences of home are lost. In like manner, all similar agencies for kindred purposes may be repudiated or neglected, and we be left to the unassisted impulses of our nature, like the primitive inhabitants of our land. Others may ridicule all this as old-fashioned and nonsensical; but we trust the day will never come, when we shall voluntarily neglect to gather flowers from the retrospect of life.

It is not indeed our lot, as it is the lot of some favored ones, to connect a family chronology for a lifetime with the same local scenery. Our lot has been one of vicissitude; but we would go a day's journey with railroad speed, for the pleasure of retracing the woodland paths of our childhood, and to survey anew the spot where stood the cabin in which we were born. Save that cabin, all around is a perfect daguerreotype of those early days! Here the sacrilegious hand of modern improvement has committed no depredation! Close by stands proud Agonoek, scowling and frowning as of old; his equanimity, to appearance, not having been disturbed since the time of Noah's flood! At his feet is spread out dear Suncook, mild and placid like a sleeping infant. On its shores we were wont to bathe and fish; and here we would again gather pebbles, casting one by one upon her silvery bosom, causing rimple after rimple, not unlike the pulsations of the virgin queen, whose name it bears! Sadness would indeed rise up before us; for the graveyard could alone tell us of the human forms with which we were accustomed to commune! It would be good to resort thither; for in that silent spot hopes of heaven would kindle, and of friendships there to be renewed and made perfect.

Who could count the thoughts that in one short hour would there flit across the mind? or what painter could delineate the images that would, as it were, rise from the ground and dance before the mental eye? What sympathetic being can say, it would not be good there to bring up such reminiscences of a long track of years, all but blotted from human recollection, and to reëmboldy visions, reaching into the unseen future in that undying world, where the pure in heart can alone enter? Can those born in the growing city, after the lapse of half a century, thus gather food for the soul; thus retaste the sweets of childhood; thus feel anew the buoyancy of youth; and thus be assisted in their aspirations after the land, not to be warmed and cheered by the light and the heat of the material sun? being overshadowed by the glory of the Ancient of Days; the land whose waters will be the rivers of salvation, and whose bread will be the unfailing essence of immortal existence and plenty!

FLEMING GROVE.

ORANGE, N. J., March 28, 1849.

For the New England Farmer.

THE GARDEN.

Farmers, have you made preparations, this spring, for the healthful luxuries of the garden, its rich fruits, its crisp, and tender vegetables? If not, you are denying yourselves and families of many of the healthful condiments which nature has kindly provided, and which man has collected from various climes, and acclimated in your own, for your special benefit. "But this gardening is small work," says one: "I don't wish to spend my time weeding onions and beets and tending bushes. I raise cabbage and

potatoes; they are enough for me." Go and enjoy them then, say we, but those wiser than you will look well to the thrift of the garden, their currant and gooseberry bushes will be well pruned, the ground well manured, well forked, and the consequence will be, that instead of depending upon a few dried apples, for pies, &c., to fill up the vacancy between old and new apples, they will have an abundance of fresh fruits for culinary purposes through that period, or a succession of fruits through the year. Now, who will not willingly labor to produce such a result, or, in other words, who would forego the comfort it brings after having enjoyed it for one season. "But it takes so long for them to come into bearing!" Dear reader, did you ever know an individual that complained of its taking so long for a tree or bush to grow, that was proverbial for success in any thing?

We have known two individuals, educated at the same school and settled in the same neighborhood. One of them, Mr. A., in the days of his boyhood was forcibly impressed with the beauty of a well conducted garden; but when he tasted of its delicious fruits and vegetables, his admiration ran so high, that he resolved on having a garden of his own. His first labor was to eradicate the pigweed and beggar-louse in the premises where his father had planted "potatoes and a few cabbage," and then, by a thorough manuring, ploughing, and laying out, to prepare the ground for future operation. Asparagus, currant, gooseberry, and raspberry bushes were introduced when convenience aided the operation; that noblest of all substitutes for a good apple pie, the rhubarb, was planted in a rich niche; the strawberry bed, too, claimed a place both for variety and luxury; and, after being properly cared for only two short years, — a period which to most men, especially the can't do's and can't waits of the world look in the retrospect as a dream, a period of which they have an indefinite recollection, — all these things were in maturity, and amply, yea, in a thousand fold, repaying all the cost and labor bestowed on them.

So, too, with vegetables. Early potatoes were introduced to take the place of the tardy "long Johns;" and though the cabbage plat received due consideration, the broccolis and cauliflowers came in to claim a share of merit by its side. Indeed, every comfort, every luxury a garden can afford, in two years from that annihilation of gross and unseemly weeds, found a place there. In consequence, better health was the result of this increase of comforts, and cheerfulness and hilarity of spirits took the place of moroseness and turbulence of feeling. And do you suppose that a great demand on the young farmer's time was created by this new accession of the useful and beautiful? Time it certainly does require to nurture and bring so fine an array of plants to maturity as young farmer A. now possessed; and so it requires time to secure and attain any valuable object. But the time necessary to cultivate a garden may with most farmers be made up of the thumbs and odd ends of other employments; and a man of persevering energy will accomplish much, almost produce a new creation in the odd spells which others will spend in folding their arms and whining because it takes so much time to accomplish any thing. W. B.

April, 1849.

For the New England Farmer.

LIQUID MANURE FOR CELERY.

I raised my celery last year in the following manner, and with the best success that I ever had. I made my onion beds six feet wide, with alleys between, of about one and a half feet in width. The latter part of June, I took strong liquid manure, wet those alleys, and then dug them up, two or three inches deep; and in the course of a week or two I went through

the same operation again. I then set the plants the first favorable opportunity, and as soon as they began to grow, I put on more manure of the same kind. As soon as the onions could be got off of the ground, I commenced tilling. The quantity raised was four hundred roots, and the quantity of manure not more than a boy twelve years old would wheel in a barrow at three times. The manure was taken green from the cow or horse stable, and prepared by mixing in a half hoghead tub. I attribute my success to having all the manure in the immediate vicinity of the roots, and the earth to bleach with free from manure to cause rust. The celery was large enough, say three feet long. A quantity of manure prepared and used in the above manner will do more good than in any other way that I have ever tried it. I set my tub in the ground and choose to let the manure stand a few days after mixing. B. F. C.

For the New England Farmer.

AGRICULTURE OF MASSACHUSETTS.

MR. COLE: In glancing the eye hastily over the pages lately published under the direction of the secretary of the commonwealth, there appears much reason to class this among the most useful of the state publications. It comes nearer home to the business and interests of the major part of the community, than any other. The inequalities in the returns from different counties are quite apparent. Would those intrusted with the preparation of these reports but reflect a little on the opportunity afforded to disseminate useful information, they might make them even much more valuable than they are.

It would seem from the communication under the authority of the trustees of the Massachusetts Society, that their efforts at present are limited to the improvement of our stock, by crossing them with the best imported animals — those reputed to be "pure blooded." That much benefit may come of this, if properly directed, we cannot doubt; but that this is the only subject worthy the patronage and care of a society so enlightened, the first organized in our country, we shall be slow to believe.

While the Massachusetts Society are limiting their attention to the introduction of the pure blood of foreign animals, we find the New York State Society extending their operations to every branch of culture. Notwithstanding the *dietum* of Governor Wright, quoted by Mr. Phinney, to the contrary, we cannot doubt that the mode pursued by the latter is the more truly philosophical. Some will be interested in one form of improvement, others in another; — the greater the variety of forms, therefore, the more enlarged will be the interest.

If we rightly understand the report of the trustees, about half a dozen pure-blooded animals have been quartered in different counties of the commonwealth, in the hope of thereby changing the character of the breed of animals in those sections. If the superiority of these animals shall be so conspicuous as to satisfy our farmers that none but their progeny are worth raising, the result anticipated may be attained. But until this conviction is brought upon their minds, I should as soon think of freeing our country of the blood of the African race, by the operation of Mr. Clay's fanciful theory of emancipation.

It may be true that "a little leaven leaveneth a whole lump," — but the principle is not applicable in the propagation of animals. On the contrary the peculiarities of the few will be much more likely to be absorbed and obliterated in the general mass. What though a fraction of an eighth or a sixteenth remain after as many crossings in this fraction to control and give character to the remainder? We would not discourage any rational experiments to

promote improvements; but we must confess, in the scheme proposed, our fears exceed our hopes.

ESSEX.

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 For the *New England Farmer*.

TO PREVENT BLEEDING IN THE GRAPE VINE.

MR. COLE: I noticed, in your paper of the 14th instant, a method described to prevent the bleeding of the grape vine. I will mention one *far more simple*, and I think equally as sure. Cut the stock slanting each way, bringing it nearly to a point; take a potato, size in proportion to the stock, split it, bore a small place, and press it upon the end of the stock, below the part that is cut. In a week, the potato may be removed: it will be as well, however, to let it remain longer.

Yours truly,

ISAAC SOUTHGATE.

LEICESTER, *April*, 1849.

EDITORIAL REMARKS.

Some persons contend that they can apply a potato so as to prevent the bleeding of a grape vine, however powerful the expulsion of the sap may be. But many say that, when the flow of sap is very strong, a potato is of no use, though applied in the best manner. It is evident that the potato cannot resist a great force, and when the sap rises with sufficient power to force its way through pieces of bladder tied over the end of the vine, we should think that the potato would be ineffectual. Yet we have no doubt that our correspondent, and many others, have been successful with this simple application. But they might not have been severe cases. Sheet India rubber, tied tightly over the end of the vine, is sure. We think that some water cement may be prepared that will be as effectual in stopping a *leak* in a grape vine, even from an injury on the side of a vine, as in stopping water in a cask or other vessel.

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 For the *New England Farmer*.

FODDER FOR MILCH COWS.

MR. EDITOR: I have read with much interest what has recently been published in respect to green corn fodder for milch cows. I now give my experience in regard to it; though it will have but little weight, when opposed by the high authority of the committee of the Essex Agricultural Society. It has been my lot to farm where we have a very poor pasture. We have fed our cows in part upon green fodder, raised for the purpose, from the 10th of May until October. We raise winter rye, oats, barley, millet, and cornstalks. My experience has led me to the belief that one half acre for every eight cows, well manured and planted with corn for fodder, is the best crop that can be raised for feeding milch cows in the month of August, whether the milk be sold or used for the purpose of making butter.

I am aware that there are many good farmers who think, from their own experience, that green cornstalks are not good for milch cows. Why this difference of opinion?

We know that some human stomachs are constituted differently from others, so that that which is food for one is poison to another; but facts do not warrant the same conclusion in regard to the cow. The difference must arise, then, either from the manner of feeding or the quantity given.

Any one that has observed the habits of a herd of cows, while feeding in the pasture, has noticed that they form many regular habits, and if they are not interrupted in these habits, they will be at the same place nearly at the same time each day. If stalks are given to them in the pasture, it breaks up their regular habits of grazing, and they become uneasy.

They should be regularly fed from the barn, not in large quantities at first. As the feed in pasture begins to fail, give them a few stalks at night; then in the morning they will pursue their regular habit of grazing. But if they are fed too freely at first, they cease to graze, and soon lie down until they begin to feel the demand of appetite; then, instead of feeding, they begin to bellow for stalks. Under such circumstances, I think cornstalks will cause cows to dry up. But when given in a proper place and in a proper quantity, I think they increase both the quantity and the quality of the milk.

I intended, when I began, to speak of the comparative value of the different crops for producing milk; but I have already taken up too much space.

WILLIAM R. PUTNAM.

NORTH DANVERS, *April* 13.

EDITORIAL REMARKS.

Our correspondent has made valuable suggestions, and introduced a subject for consideration which is often neglected. We hope that he will pursue it, as he intended; for we still want more light on the comparative value of different kinds of food for animals, particularly for milch cows. Mr. Putnam will excuse us in omitting his preliminary remarks on *winnowing* communications, as his article appeared to be free from *chaff*. See p. 17.

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 For the *New England Farmer*.

THE GADFLY IN CATTLE.

MR. EDITOR: I noticed, in the *New England Farmer* of March 31st, an inquiry respecting the gadfly, in which the writer concludes by saying, "Now what I wish to know is, what is the remedy? Can any thing be applied which will destroy these grubs, and do no injury to the cow?"

I have for years noticed that these insects are a great inconvenience to cattle, making them poor and in a great degree weakening to oxen which are troubled with them; and I have found by experience that carding cattle constantly, once a day, through the winter, will effectually destroy these intruders, and the cattle will do enough better, otherwise, to richly pay for the trouble. After these insects get their growth in the backs of cattle, I know of no remedy better than the one you propose; but years of experience have proved to me that thorough carding on the back will effectually destroy them.

HORACE CARPENTER.

WORCESTER, VT., *April*, 1849.

EDITORIAL REMARKS.

We are pleased to hear of so simple a remedy, and one which besides destroying the grubs tends greatly to the comfort and good condition of animals. As cattle do not bathe, rubbing, brushing, and currying are very necessary to keep the skin clean, and in a healthy condition; and unless this is attended to by those who have the care of stock, the skin becomes foul, the pores are stopped, the circulation impeded, and as the insensible perspiration through the skin is checked, the matter is thrown inwardly to the

vital parts, and disease follows, or a dull, uncomfortable, languid condition is the consequence, which lessens the value and profit of the animal.

Cattle and horses should be curried daily, while they are kept in the barn or stable; yet many farmers neglect this useful operation, though it is almost as essential to a high state of health as food, water, pure air, or exercise.

THE POWER OF THE MUSCULAR SYSTEM.

The number, variety, and power of the motions capable of being produced by these muscles are indeed most wonderful, as all have seen and experienced. They enable us to climb the lofty tree, and even the smooth pole of liberty; to mount the towering mast, and not only support ourselves in the rigging of the ship, but to put forth great muscular exertion while she is tossing and rolling, and that in the midst of the hurricane. Standing upon our feet, we can toss our bodies, weighing from one hundred to two hundred pounds, several feet upwards and forwards, and in all directions, for many hours in succession, as in dancing and the circus. Or we can transport it fifty or sixty miles between sun and sun, and even carry many pounds weight upon our backs. Or we can chase down the fleetest animal that runs. Or we can labor briskly every day, for scores of years. Or we can lift and carry several times our own weight. Or we can accomplish a multiplicity of powerful and protracted bodily exertions, and do a variety and amount of things almost without end.

IMPORTANCE OF LABOR.

It is a well demonstrated truth, that happiness can be found only in the natural, proper, healthy action of the powers and faculties which the Creator has given, or in obedience to the laws written by the finger of God on our physical, organic, and mental constitution. These powers and faculties were given that they should be exercised prudently and judiciously. Divine Wisdom never designed the human being for a life of total inactivity and ease; and he who seeks for happiness here will most surely be disappointed. No man was ever born into the world with a constitution fitting him naturally for such a life; and he has sought in vain for the highest good, and the perfection of earthly happiness and enjoyment, save when, in accordance with the divine arrangement, he sought for it in vigorous action, in labor, in the exercise and development of every power and faculty of his being.

The importance of labor is too little thought of and regarded — labor with the hands, with every muscle and sinew in this curiously wrought human frame. The idea, too, has crept into some weak craniums that it is disgraceful to labor; that *to work* is to stoop from superior dignity and excellence. But God has not so said in the arrangement he has made. It is an ordination of his, that he who will not work shall not eat well, nor sleep well, nor feel well — that his condition shall be the reverse of that man, who, standing firmly upon the green earth, his hands hanging carelessly by his side, and his eyes wandering over space, is permitted to feel, thus circumstanced, such agreeable sensation arising in his mere bodily frame, that he can raise his mind to heaven, and thank God that he is a living man.

Not only do bodily health, and vigor, and consequent enjoyment, depend upon labor, but also health and vigor of mind, and the pleasurable emotions

resulting from this mental condition. It has been well asked, "What distinguished man in this country or age, or any other, but took a great amount of exercise while young?" You can hardly point to a great man, to one eminent in any department of knowledge or letters, whose hands in his early years were not hardened, his frame knit and rendered sinewy, and his brow made dusky by manual toil. No man, perhaps, of the present day, stands higher as a scholar than Elihu Burritt, the learned blacksmith; and the fact, that, while mastering language after language, he was compelled to labor at the anvil and forge eight hours every day, tells the whole story of his intellectual growth, and the way he climbed up to eminence and distinguished honor. Henry Clay was once a poor boy, and knew what it was to work with his own hands for a living. And the immortal Shakspeare, whose fame is world wide, often laid aside his pen, folded the wings of his genius, hushed the voice of his lyre, and went out to labor in carrying brick and mortar. "Webster was a backwoodsman, born in a 'log cabin' on the borders of the unbroken forest," and was no stranger to hardship, exposure, and daily toil. "Franklin, the beacon star of his profession, was a practical printer." Washington, whose "fame is eternity," when not in the service of his country, was engaged in agricultural pursuits; and he received the news of his election as president of the United States while following the plough. And shall it now be said that labor is disgraceful? that to work is undignified, and is not indispensable to health and vigor of body and of mind? No — it is manly to labor, and for six thousand years God has been uttering it in human ears, that he who will not work shall not enjoy. — *Wisconsin Farmer.*

CULTIVATION OF TREES.

Few persons have a correct idea of the rapidity of the growth of well cultivated trees, and many are deterred from planting them, by the consideration, selfish at the best, that they shall not live to reap the fruits of their labors.

Such persons may derive encouragement from the statement of a few facts. In the spring of 1836, I set out, in front of my office, in Chester, two elm-trees. They were then so small that I could easily carry them, with the full top upon my shoulder, and were, perhaps, two inches in diameter. I measured them carefully in the fall of 1847, and found them of equal size, and each measuring forty-five inches in circumference. They stand about eighteen feet apart, and some twelve feet from the building, for which they form a perfect protection from the summer's sun, their branches being already interlaced. The elm is in that neighborhood of more rapid growth than the rock maple, or indeed more than any other forest tree.

An apple orchard may be brought to commence bearing in four years from transplanting from the nursery, which should be the second or third year from the time of budding. By the eighth or tenth year, your orchard, well managed, will pay you annually for all your trouble and expense in planting it, and will continue productive as long as you have any right to expect to live. Peach-trees usually bear the third year from the stone, and the second year from the bud. — *Hill's Monthly Visitor.*

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

Thousands of cases might be named of the rapid growth of fruit and forest trees. In a short time, a tree attains a large size under good management; and no one should be discouraged from planting trees from their slow growth, as this is usually owing

to neglect. There was a time when it was urged as a duty to plant trees for posterity; but so many improvements have been made in hastening the maturity of fruit trees, and the growth is forced so rapidly by high culture, that trees soon attain a large size and become productive, and as a natural consequence, they will be short-lived.

This change is an improvement, and in future every generation must plant for themselves. The peach comes into bearing early, and after producing a few crops, it generally declines; but this is no objection to its cultivation, for it holds out the prospect of an early return for labor expended. We must plant corn, potatoes, peas, beans, &c., every year; and this is no objection to their cultivation; on the contrary, it affords the farmer greater facility for their production, than if they were perennial plants, and required ten or fifteen years to come into bearing.

MANAGEMENT OF STABLES.

The great desideratum in a stable is ventilation. A horse requires air equally with his master; and the latter requires a chimney to his sleeping apartment; so does the former. The chimney may be a mere outlet, opening through the ceiling, or it may be formed as a dome or cupola. It should not, of course, be open at the top, or rain will get in, but roofed over, and an opening at the sides by weather boards. Besides this, there should be openings in the walls near the ground, but not in the stalls. This will produce a thorough air. It may be so placed as not to expose the horses to draught. The stable should not be less than twelve feet high, from floor to ceiling, and the former should be well paved, slope slightly backwards, and along the back of the stalls should run a gutter about a foot wide, and an inch or two deep. No stables should be less than eighteen feet deep, and each stall should be at least six feet clear; but if eight feet can be afforded, so much the better. Although some horses will agree when kept together in one stall, it is far better to give each a stall to himself. The manger should be about sixteen inches deep, the same from front to back, narrower at bottom than at top, and two feet in length. The rack is best closed in front, the back part being an inclined plane of wood, sloping gradually towards the front, and terminating about two feet down. This rack effects a considerable saving in hay; for we need scarcely remind our readers that, in the common rack, much of the hay given is trampled in the litter. It also prevents the hay seed from falling into the horse's eyes, for the rack, such as we recommended, is on a level with the manger, and about three feet from the ground. Another advantage also gained by this rack is the facility with which it can be filled, thus obviating all necessity for a loft over the stable, and, consequently, admitting of a greater height of ceiling, as well as superior ventilation. The windows and doors should be at the opposite ends; this promotes ventilation; the former at the south-east extremity of the building; the latter should be divided transversely, like an ordinary barn door, at the height of about four feet from the ground. The door portion may thus be occasionally open. Whitewash is a bad dressing for the interior of a stable, as it causes too great glare of light; paint of a leaden color is best; it can be washed from time to time with soap and water. There should be a bin, divided properly into partitions, for oats, beans, &c., and this is better at the back of the stable, and may be made to answer the purpose, both as regards utility and ornament, of a

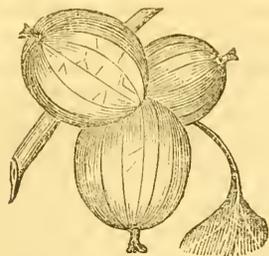
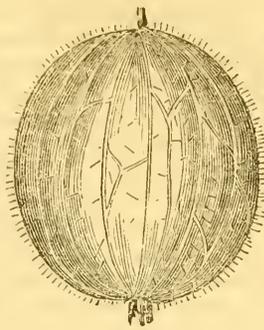
seat. A few buckets of water dashed over the floor of the stables while the horses are at work, or, if hunters, at exercise, will keep all sweet. The litter should also be turned out to dry, or a bit of fresh straw spread for the horses to stand on. A shed placed beside the stable is a great advantage, on two accounts; it admits of the litter being dressed and the horse dressed there in wet or stormy weather. A little powdered gypsum strewn upon the stable floor, will also act by absorbing the ammoniacal gas — a frequent predisposing cause of ophthalmia. Should the ammonia, however, have accumulated in any quantity, the speediest and most efficacious remedy, as a disinfectant, is the laying down a plate, or dish, containing muriatic acid. — *Maine Farmer*.

CHEMICAL COMBINATION.

Another striking example of this chemical creation is the protoxide of nitrogen, — called from its effects the *intoxicating gas*, — a simple combination, in slightly altered proportions, of the oxygen and nitrogen composing the air we breathe, but nowhere existing in nature under the form in which science presents it to us. The admission, now generally made, that atmospheric air is a simple intermixture of gases, and not a chemical compound, scarcely abates the wonder that so small a change in the proportion which ministers to common life should become the cause of those sudden and singular affections of the brain and nervous system, which alter for a time the whole condition of the being. Chemistry, however, and especially organic chemistry, accustoms us to these wonders. More strange and striking still, in their properties recently discovered, are the two creations of the laboratory — sulphuric ether and chloroform. By working with and among the relative affinities of certain elements, man has obtained these compounds, — and there may be others of kindred quality, — the simple inhalation of which produces a state of insensibility to pain, even under operations the most severe which surgery can inflict. We have spoken much of chemical analysis. This is in effect an analysis of the compound nature of man; the separation and the removal for a time of a part of our sensitive existence — having close analogy indeed to certain of the conditions of sleep, (itself the great miracle and mystery of life,) but even more striking in some of the inferences it conveys; and unless it be that bodily suffering is allotted to us for moral uses — a discovery profuse of future benefit to the human race. — *Quarterly Review*.

QUERIES FOR SCIENTIFIC MEN.

In what manner does diamond act upon glass so as to cut it? That it does not penetrate its substance is obvious to any one who attends to its operations, for it only divides the exceedingly attenuated pellicle on the surface, and penetrates no deeper. The best cut of a diamond is when it makes the least noise in passing the line, and it cuts in the same manner the thickest as well as the thinnest plates of glass. The *Encyclopædia Americana* says, that "it is very remarkable that only the point of a natural crystal can be used; cut or split diamonds scratch, but the glass will not break along the scratch, as it does when a natural crystal is used." Again, "the crack is often found to follow the diamond after it has passed several inches. That it does not cut it by dividing the pellicles is clear, because a piece of quartz will do the same by passing in the same line repeatedly, yet it will not break true. Then how does the diamond act? Is it by electricity or galvanism, or the carbon acting upon the compound of which glass is composed?"

*Houghton's Seedling.**Crown Bob.*

THE GOOSEBERRY.

For the New England Farmer.

MR. EDITOR: The gooseberry requires a deep, rich soil, and the same general culture as the currant. It is naturally fond of a moist soil, and is raised in the humid atmosphere of England in its greatest perfection. In our hot and dry climate, it is naturally found in wet swamps, or in moist, rocky woodlands.

As the English or Scotch gooseberry has never succeeded well with us, in consequence of its liability to mildew, — a disease incident to our hot and dry climate, — we were induced, a few years since, to attempt to produce some seedlings from a cross between a Lancashire and our native kinds. We have succeeded in producing several varieties, possessing some excellence.

But the best gooseberry we have seen thus produced, and far exceeding any thing of our own production, is the one raised by Mr. Abel Houghton, formerly of Lynn, Mass. Some years since, we received from Mr. Houghton this gooseberry, and it has proved to be a very fine variety, and I think it combines more good qualities than any kind I have ever seen. My friend, Mr. Ives, of Salem, who also has this gooseberry under culture, speaks of it as being worthy of general cultivation, and that it possesses the habits of the "Crown Bob" in throwing out long pendent shoots. These long branches are something peculiar to this variety, and, when suffered to grow and trail upon the ground, readily take root, and thus new plants are rapidly produced. When these are kept from the ground, by tying them to stakes, they can be trained to a considerable distance.

In my mind, there is but little doubt that this fine gooseberry is a hybrid, produced by a cross between a wild gooseberry and the "Crown Bob." It is very hardy, most easily propagated, bears regularly, and most profusely, the berries thickly set on the branches, and crowding each other to their very ends. It also commences bearing at a very early period of its growth. The berries, when properly cultivated, are generally of a good size, the skin very thin and tender, of a dull, pale white, tinged with a reddish brown. The flesh is easily broken, and sweet and pleasant to the taste.

Although we have cultivated it for several years, we have never known it to blight. To produce fine fruit of a good size, the shrub should be highly cultivated, and all the old wood cut out. It also should be set where it will not receive the intense heat of the noonday sun, as, when thus exposed, the fruit is liable to be injured, and fall before it is ripe. The fruit is ripe the last of July, but it can be retarded

in its ripening by setting the plants on the north side of a wall or fence. We are in the habit of strewing ashes around the bushes, and covering the ground with spent tan. This serves to keep it moist and light. From all that we have seen of the Houghton gooseberry, after several years' cultivation, we would, with great confidence, recommend it for general cultivation. S. P. FOWLER.

DANVERS NEW MILLS, April 13, 1849.

EDITORIAL REMARKS.

The opinion of Mr. Fowler on the Houghton gooseberry is in accordance with our own experience and observation. In the first year that we set some little twigs of this variety, they grew vigorously, and the next season they were covered with fruit to their tips. While most kinds of gooseberries are of coarse texture, and of a harsh, acid quality, suitable for cooking only, this is tender, sweet and luscious, forming a valuable dessert fruit, particularly for children, and many others, who prefer a saccharine property.

REPORTS OF THE AGRICULTURAL MEETINGS.

At the meeting, April 10, the subject of agricultural education was postponed, on account of the small number in attendance. The committee, to whom the subject of publishing reports of the meetings in a permanent form was referred, substituted the following preamble and resolves, which were passed: —

It being the purpose of the Legislative Farmers' Meetings to acquire and diffuse a knowledge of the most productive and economical methods of farming and gardening, through the contributions of farmers and men of science, and also to preserve the same in a durable form, by suitable reports of their proceedings, —

It is therefore resolved that hereafter, at these meetings, measures be taken to have accurate reports of their proceedings published in the volume of "Transactions of the Agricultural Societies" of Massachusetts, annually prepared by the secretary of state, and published by order of the commonwealth.

It is further resolved, that the foregoing duty, in its details, be devolved upon the standing committee appointed at the commencement of each of these annual meetings.

HORN-AIL IN CATTLE.

Mr. Editor: I lately noticed a very sensible piece in your paper, taken from the Lowell Journal, on the symptoms and treatment of this disease in cattle. I perfectly agree with that writer in regard to the symptoms and the propriety of a good, warm, dry bed, and food of easy digestion, and also nutritious, such as potatoes, oatmeal, &c.; but in regard to physic, or any purging medicine, I have for twenty-five years past made use of the shrub, or bush ivy, or what some call *mercury*, which grows in low mowing land. — *Mode of Preparation.* Take as much of the herb as will nearly fill a six or eight quart kettle; boil it, say two hours, and have about two quarts of liquor when boiled, and give a common junk-bottle full at a dose, moderately warm, and repeat the dose in twenty-four hours, and again the next day if thought necessary. By this treatment I have never found any difficulty in restoring the animal to a good appetite and good health in a few days; but the sooner a sick animal is attended to, the more easy and speedy the cure.

N. B. Care should be taken in boiling the ivy, and have no persons exposed to the steam arising from it, for fear of poisoning them, if they are easily poisoned by the green plant when growing in summer.

Farmers should always lay up a bushel of ivy in hay time, when it can easily be saved, and have it ready if they should be so unlucky as to need it in the winter or spring, which is the most usual time for the disease to prevail.

I have also found a sirup made of the ivy a very effectual preventive against poisoning, when working amongst it in haying time, or any other time of the season. The sirup is to be made as follows: Take one pound of ivy, boil it thoroughly, and have, when boiled, two quarts of the liquor; add two quarts molasses and two quarts good brandy; shake it well together; and before going to work where you are exposed to the ivy, take about one table spoonful, and repeat the same dose forenoon and afternoon, while exposed to it; and persons so doing will find but little inconvenience arising from the effects of the poisonous quality of the ivy.

I have made use of the above sirup for myself and boys, and hired hands, who formerly poisoned very easily, for several years, with complete success, and consider it a perfectly safe remedy.

DAVID NOYES.

NORWAY, March 19, 1849.
— *Norway Advertiser.*

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

It is an astonishing fact that poison ivy, (*Rus radicans*), the very effluvia of which will poison some persons severely, when passing near, without coming in contact with it, may be taken internally, not only with safety, but as a valuable medicine; also as an excellent remedy against the effects of its own poison; and Mr. Noyes shows that it may likewise be used as a preventive.

CULTURE OF PARSNIPS.

We hope that the farmers of Maine will pay more attention to root crops the ensuing season than they have for a few years past. Many more roots of all kinds were raised, in this section of the Union, ten years ago, than there are now. Subsequently to that period, potatoes commanding a ready sale and good price for starch factories in the interior, and for shipping on the seaboard, our farmers put their

whole strength to this crop, omitting, in a great degree, the other roots. Soon after this, the rot commenced, and farmers, as if discouraged, left off planting, not only potatoes in so large quantities as before, but also other roots; and now there are not so many raised as the wants of the community demand.

We would recommend experiments to be tried with parsnips as a field crop. They should be planted early, in a deep soil. If the ground should be ploughed, and at the same time following the plough with a subsoil plough, no doubt great advantage would be gained. Plant early. This root contains much saccharine matter, is easily raised and preserved. The whole crop need not be dug in the fall, for it is well known that they keep well all winter, frozen down in the soil, and may be drawn in the spring as they are wanted. When cooked, they make excellent food for swine, and they also make an excellent provender for milch cows in the spring, at a period when something of the sort is needed to give richness and substance to the milk. The principal objection we ever heard made to the culture, is the difficulty of harvesting them, or getting them out of the ground.

We are told by some who have travelled in the Islands of Guernsey and Jersey that much account is there made of the parsnip crop for the purpose of feeding their cows, and that the increase of cream and the excellent flavor imparted to it by this food, makes it peculiarly profitable to them. — *Maine Farmer.*

THE POTATO DISEASE.

Although this may seem not to be a fit time or season of the year, I venture to say or make a few remarks on the subject of the potato rot. Aware that there has been a great deal said relative to it, and various remedies prescribed, still I do not think but what some remarks may be made advantageously on the subject yet. The potato has been too highly cultivated, and has become exhausted through excess of cultivation. Though to some this may seem like strange logic, yet, in my humble opinion, it is nevertheless true; and I was confirmed in the opinion the last season by observation and experiment. In one case, in particular, I noticed, while digging the potato, that in one part of the field, where the soil was greatly superior to that of any other part of it, and where the potato has been better and oftener dressed than in the other part, that they nearly all were rotten; while in the other part of the field, where the soil was of an inferior quality, and the potato not half attended to, there none were diseased. This, and numerous other cases, make it very evident to an observer, that the root has become sickly and exhausted through excessive cultivation. I conclude, therefore, that the following remarks may be worthy of notice in the premises. The ground selected for the potato should be high and dry; a piece that the water will not stand on after a shower; with rather a light soil. Or, if your land is low and clayey, let it be ridged up by turning two furrows towards each other, and plant on those ridges, with your hill in such a manner that the water will rather run from than towards it. After your ground is thus prepared, plant as soon as possible, and as early in the season as practicable, without any regard to the "moon," or any other signs. Keep the ground as free as possible from weeds, without disturbing the earth close to the hill of the potato. As soon as you perceive the vines begin to dry up or die, dig the potatoes immediately, and before putting them in the cellar, let them get thoroughly dried, and they should be kept so in the bin or receptacle. If those whose potato crops have been destroyed will

try this mode of culture, they will give it a preference as a preventive over "clipping," or any other method yet recommended. J. A. S.

GRATTAN, KENT CO., MICH., 1849.
— *Dollar Newspaper.*

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

The article above contains valuable hints on the cultivation of the potato; yet we think that the cause assigned for the rot in potatoes is a predisposing cause only, not the principal cause. Previous to the late malady, some farmers had given to certain varieties high culture for thirty years, and so from failing in any way, they improved under judicious management and high culture.

By high culture, good potatoes were raised on a certain piece of land for twenty years in succession. We noticed the twentieth crop, and it was fine. This could be done only by high culture; for without very liberal manuring, the potato soon fails in succession. Yet on that land there was no rot, until the disease became general.

There are thousands of farms on which the same varieties of the potato have been cultivated for many years, and seldom with high culture; yet it rots on such farms, and occasionally on the best soil, and under the most favorable circumstances for guarding against it.

RAISING ONIONS.

FRIEND HOLMES: I have noticed considerable in your paper relative to raising onions — remedies for the onion worm, or maggot, &c., &c. I will give you my experience, for the benefit of the public.

I have discovered that the egg of the maggot is deposited in the skin of the seed, and consequently sown with the seed, as the weevil in wheat. By soaking onion seed in warm water, a little warmer than blood warm, half an hour will hatch out lots of live maggots. Then you may soak the seed in copperas water, or saltpetre, to kill what maggots do not hatch out in the warm water. Dust them with dry, slaked lime, and sow in good onion ground.

We should like to have this experiment tried, and see the results published in the Farmer next fall.

RAYMOND, March 26, 1849. J. M. T.
— *Maine Farmer.*

WHAT CONSTITUTES GOOD FARMING.

In his work on "Lancash Farming," a rare and valuable contribution to agricultural literature, Mr. Rawstone, the author, remarks: —

"It may be laid down as a standing rule, and as a guide to direct us, that all good farming, the whole of that process by which bad land is to be converted into good and productive, and continued in that state, is composed in the three following operations of husbandry, viz. :—

"1. To carry off all superfluous and stagnant water, by means of judicious draining.

"2. To return, through the medium, of manure, the strength and fertility which has been exhausted by cropping.

"3. To extract all noxious weeds, that the strength of the manure may be thrown into the crops, and not into the weeds."

Every cultivator, who exercises discretion in the management of his lands, will recognize at once the importance of observing these rules. Every weed

produced on a farm abstracts somewhat from its productive value, and, when permitted to mature its seed, is a nuisance, the deteriorating and stultifying effects of which will make themselves felt for many years. To manure a field which has been carelessly hoed for one or two seasons, and where more spurious vegetation has been allowed to reach maturity, than has been destroyed, or even crippled, by the hoe, is a labor that can involve little else except disappointment and dissatisfaction in the end. Hoeing and weeding are processes which should be performed with skill and circumspection. Every weed should be eradicated and destroyed. When one hoeing, or one weeding, fails to effect this, let it be repeated; and so on till the soil is thoroughly cleansed, and every vestige of spurious vegetation utterly and completely destroyed. Most weeds are gross feeders, and abstract a greater amount of nutritive matter from the soil, than is required to perfect three times the number of cultivated plants, of equal or even superior size and weight.

A MONTGOMERY COUNTY FARMER.

March 16, 1849.
— *Germantown Telegraph.*

FATTENING FOOD.

The experience of farmers has always been in favor of the doctrine that oily provender is required to produce fat; beech-nuts, linseed-oil cakes, and corn enjoy the highest reputation, and are most charged with oil. Liebig has, however, advanced the doctrine that farinaceous vegetables, as the potato, carrot, &c., are fattening from the starch they contain; but although this may be true physiologically, yet, in ordinary farm management, it is found cheaper and more expeditious to use foddere already containing the fat, rather than to wait for the slower transformation out of starch.

Fattening food should be well prepared by grinding and steaming for hogs. A mush that had become slightly sour was found to fatten more expeditiously, by Arthur Young, than the fresh food.

The following table gives the comparative values of provenders for fattening, by showing the amount of oil they contain:—

Indian corn,	9	to	10	per cent.	of oil.				
Oats,	4	"	5	"	"	"	"	"	"
Wheat,	2½	"	2½	"	"	"	"	"	"
Bran,	4	"	5	"	"	"	"	"	"
Oil cake,	9	"	10	"	"	"	"	"	"
Clover hay,	4	"	"	"	"	"	"	"	"
Meadow hay,	3½	"	4	"	"	"	"	"	"
Peas and beans,	2½	"	3	"	"	"	"	"	"
Beech mast,	15	"	17	"	"	"	"	"	"
Sunflower seed,	15	"	"	"	"	"	"	"	"
Linseed,	11	"	22	"	"	"	"	"	"
Hempseed,	18	"	25	"	"	"	"	"	"
Straw,	1	"	1½	"	"	"	"	"	"

These numbers are not constant, for the amount of oil depends upon the season, increasing with the brilliancy and dryness of the weather. Potatoes, beets, carrots, turnips, mangel wurzel, contain less than one quarter per cent., and are therefore not adapted for fattening alone.

The same values are true for butter and milk, except that oil cake imparts a bad flavor. Poultry and pigs are now sometimes fattened in part on animal fat, as cracklings, geaves, &c. One of the most successful bodies in the list is ground linseed meal; but, considering its other qualities, corn is the most esteemed. If the cake or oily seeds are used, it will be necessary to mix meal, oats, or peas with them, to preserve the health of the animal; five pounds of cake are a sufficient supply for the day.

Domestic Department.

For the New England Farmer.

DOMESTIC HAPPINESS. — The pursuit of happiness is laudable, and is more easily secured than some would suppose after realizing the uncertainty of its acquisition by the often tried means of unlawful schemes for its attainment. Within the family circle there is ample room for the full display and expansive influence of the heaven-born virtue — domestic happiness. Each and every member thereof has his or her respective duties and obligations to perform, in order to render home just what it should be — the seat of quietude and enjoyment, the reservoir of the choicest blessings of earth.

“Domestic happiness, thou only bliss
Of Paradise, that has survived the fall!
Though few now taste thee unimpaired and pure,
Or, tasting, long enjoy thee! too infirm,
Or too incautious, to preserve thy sweets
Unmixed with drops of bitter, which neglect
Or temper sheds into thy crystal cup;
Thou art the nurse of Virtue; in thine arms
She smiles, appearing, as in truth she is,
Heaven-born, and destined to the skies again.
Thou art not known where pleasure is adored.
That reeling goddess with the zoneless waist
And wandering eyes, still leaning on the arm
Of Novelty, her fickle, frail support;
For thou art meek and constant, hating change,
And finding in the calm of truth-tried love
Joys that her stormy raptures never yield.
Forsaking thee, what shipwreck have we made
Of honor, dignity, and fair renown!”

Thus the man of true poetical genius left his testimony to the priceless value of social, domestic happiness.

Let not this blessed “survivor of the fall” be cast off and displaced, which, if done, will be succeeded by a plant of a rank and bitter nature.

Domestic happiness! in thy very name are charms which invest thy votaries in the pleasing mantle of quietness, assurance, and peace. J.

VINEGAR. — Many families purchase their vinegar at a very considerable annual expense: some “make do” with a very indifferent article; and others, for want of a little knowledge and less industry, go without. It is an easy matter, however, to be at all times supplied with good vinegar, and that too without much expense. The juice of one bushel of sugar beets, worth twenty-five cents, and which any farmer can raise without cost, will make from five to six gallons of vinegar, equal to the best made of cider or wine. Grate the beets, having first washed them, and express the juice in a cheese press, or in many other ways which a little ingenuity can suggest, and put the liquor into an empty barrel; cover the bung with gauze, and set it in the sun, and in twelve or fifteen days it will be fit for use. — *Farmer's Advocate.*

TO TAKE INK OUT OF LINEN. — Editors' and clerks' wives will learn with pleasure that to take a piece of tallow, melt it, and dip the spotted part of the linen into the melted tallow, the linen may be washed, and the spots will disappear, without injuring the linen.

FIFTY years ago, Mrs. Washington knit stockings for the general; now, there are not fifty ladies in a city who can play that part, and hundreds know not how the apple gets into the heart of the dumpling.

Boys' Department.

EARLY RISING AND INDUSTRY OF BIRDS. — The zeal and perseverance with which some persons devote themselves to the economy of nature, to the developments of science, the observation of animal life especially, either in its structural forms or its habits, prove that there is something perfectly unselfish in human nature; a love of truth for its own sake, absolutely disinterested. The whole history of science manifests this. Bacon, it is true, defiled his mind with the love of lucre, and sullied his great name by acts unworthy of an honest man; but generally the true devotee of science is one who postpones all other gratifications to the end he has in view — simply to explore Nature, and to demonstrate her laws.

One of my friends in Paris has an acquaintance remarkable for the simplicity of his manners and the kindness of his disposition, who, like Alexander Wilson and Audubon, delights himself in the history and the habits of the feathered race. M. Dureau de la Malle is not adventurous, like our American ornithologists. Linnæus sometimes employed himself with satisfaction upon a few square feet of grass ground, to study the varieties of its vegetable products, and the multitude of insects that find their sustenance upon them; and St. Pierre, in the vitality of a single strawberry plant, beheld with admiration the wisdom and goodness which bestow consciousness and enjoyment in minute and innumerable forms of life. M. de la Malle, in like manner, watches over the affections, the industry, the pleasures, and distinctive peculiarities of the pretty creatures who have made their resting-place under his windows. To do this, for half the year he accommodates his own habits to theirs. “For the last thirty years,” says he, “in the spring and autumn, I go to bed regularly at seven o'clock, and rise at twelve — a practice necessary to make observations upon the matinal habits of birds.” Eight species have afforded the following results: The chaffinch (*pinson Français*) awakes from one to half after one in the morning; the linnet (*fauvette*) between two and a half and three; the blackbird (*merle*) between three and a half and four; the nightingale (*rossignol des murailles*) between three and three and a half; the lapping (*pouillot*) at four; the sparrow (*mouineau*) at from five to five and a half; the tomtit (*mesange*) also from five to five and a half. Thus the chaffinch is the most matinal and the sparrow and tomtit the most dilatory of the birds observed.

Endeavoring to ascertain the causes of these differences in the commencement of their diurnal activity, M. de la Malle noticed some curious facts in regard to several individuals. June 4, 1846, the linnet and the blackbird, which had not previously taken flight until four o'clock, changed the time to two and a half. What was the occasion of this? Their little ones were hatched; the necessities of each family had increased. Until this day, the provident male obtained food for himself, and had relieved the patient hen, both enjoying a protracted repose, compared with other tribes; but the increase of a bird's nest, like that of a human family, demands increase of means, and, therefore, increase of toil to supply their wants. By the clear light of the moon, the fathers and mothers of the two species were then, and afterwards, seen busy, searching among the grass and along the flower borders for insects, and stray particles of nutritious substance, destined to feed the nestlings.

June 11, the linnet was awakened some hours before the usual time by the light of a brilliant lamp, and began to sing; but perceiving that she was out of season, she composed herself again. Free blackbirds, full grown, were never observed to imitate any

note of other birds, while caged birds of that species, taken young, become very good imitators. M. de la Malle possesses one of the latter, which he caused to be hung up near the garden. There its powerful voice sent out vigorously the acquired song.

The free birds, however, disdain this accomplishment, resisted all improvement, and limited themselves to nature's teachings. Not so their fledglings; they, impressible like him who has dominion over the birds of the air, and, like generations of men seizing upon new suggestions, in despite of the tenacity of their predecessors, learned the song of the little captive. Hatched March 10, these young blackbirds were the offspring of the same pair, their birthplace was the same garden, the same linden-tree, the same nest, and, by the middle of June, they had become proficient in the art of the caged bird, answering to him, or singing in concert with him, repeating with many voices the notes which had been sung in vain to their parents. So much for good company and the education of birds.

According to M. de la Malle's observations, *domestic birds* — for they may be called such, that fit themselves confidently near the habitations of man — require just the same duration of sleep as the lord of creation. Seven hours, a little more or less, out of the twenty-four, are necessary to the daily refreshment of our human life, and so long appears to be the period allotted to the oblivion of those little lives which minister so delightfully to the gratification of ours. — *Littell's Living Age.*

Health.

WATER AS A BEVERAGE. — Water is the natural and proper drink of man. Indeed, it is the grand beverage of organized nature. It enters largely into the composition of the blood and juices of animals and plants; forms an important ingredient in their organized structures, and bears a fixed and unalterable relation to their whole vital economy. It was the only beverage of the human family in their primeval state.

In that garden where grew "every tree pleasant to the sight and good for food," producing all the richness and variety of "fruit and flower" which an omnipotent and all-bountiful Creator could adapt to the relish of his senses, and the exigencies of his entire organization, it cannot for a moment be doubted that man was in a condition the best suited to secure to him the uninterrupted, as well as the highest and best exercise and enjoyment, of his physical, mental, and moral powers. His drink was water. A river flowed from Paradise. From the moment that river began to "water the garden," till the present, no human invention has equalled this simple beverage; and all the attempts to improve it by the admixture of other substances, whether alcoholic, narcotic, or aromatic, have not only failed, but have served to deteriorate or poison it, and render it less healthful and safe.

Water is as well adapted to man's natural appetite as to the physical wants of his organs. A natural thirst, and the pleasures derived from its gratification, were given us to secure to the vital machinery the supply of liquid necessary to its healthy movements. When this natural thirst occurs, no drink tastes so good, and in truth none is so good, as water; none possesses adaptations so exact to the vital necessities of the organs. So long as a fresh supply of liquid is not needed, so long as there is not the least relish for water, it offers no temptation, while its addition to the circulating fluids would be useless or hurtful. — *Dr. Muszey's Prize Essay.*

EXPOSURE TO THE AIR. — The importance of attending to the habitual exposure of children to the air is not duly estimated. At no period of life does any cause produce such permanent ill effects, as in the feeble and susceptible age of children. The bad effects of want of pure air and exercise are seen in children confined to manufactories, and in those inhabiting a dense and badly-ventilated part of a large city. Contrast these with children of the country, and we shall see a wonderful difference.

Mechanics' Department, Arts, &c.

As the days are becoming longer, mechanics will find time to have a little respite from their usual labors, and take a pleasant exercise in ornamenting and cultivating a spot of land. This will greatly conduce to their health, and enable them to render their home more endearing to their families, and give to their premises an additional value, both in their own opinion and in the opinion of others.

There are many vegetables, as well as fruits, that are far more valuable when gathered as they are wanted for family use, than those that have wilted and perhaps become bruised and injured by rough usage and transportation. A little time, which may be spent as a rational recreation and healthful exercise, will enable one to furnish his table with many choice dishes, that will be the sweeter as they are the products of his own hands; and in this way there will be the advantage of imparting useful information to children, in the art of cultivation, and in the science of botany, and by example give valuable instruction in economy and industry. By planting the land and attending to its cultivation, important moral principles will be planted in the tender minds of juvenile spectators, or perhaps participators in the pleasant labors, and the cultivation of the earth by the father may serve the valuable purpose of cultivating and improving the mind of the child. Many instructive lessons may be drawn from the pleasing art of horticulture.

THE PHILOSOPHY OF LABOR. — How to make industry attractive, is one of our present social problems. Work is a human necessity, and exercise is necessary to health. Idleness is felt as a curse. Every body wishes to be actively engaged at something; but it is nevertheless true that protracted and solitary labor is wearisome, whether it tasks our muscular powers or not. We do not love toil and drudgery, and we are very apt to think that some other occupation would suit us better than the one in which we are engaged.

But there are certain conditions that render all kinds of labor delightful. When a man has a passion for any particular work, he pursues it with ardor and pleasure. The author writes hour after hour with a sustaining enthusiasm, the artist works hard and long at his picture or statue, the gardener who loves his employment never gets tired.

But it is to be observed, that all these labors have another pleasing element — that of variety. The author is constantly producing something new; the artist is engaged in various portions of his work, and bringing them to perfection; the gardener has a little world of objects under his care, and he sees their progress from day to day.

Besides enthusiasm and variety, there is another condition of pleasant or attractive labor; and that is, society. Work is always pleasant and easy where many persons can join together; especially where men and women can engage in it. Rural life gives us many illustrations of this principle.

For instance, there is not much harder work than to sit down alone and husk corn, hour after hour; yet what is more pleasant than a husking? Rolling logs and lifting timber are hard work; but a log-rolling or raising is a festival. What a monotonous and tiresome task it is to pare apples and prepare them for drying! yet what rustic scene is better than a paring bee?

We may draw illustrations from our pleasures and amusements. If a man were to go into a room alone and dance all by himself four or five hours, he would be very much fatigued, and would demand good wages; but give the same man a little music and some agreeable company, and he will not only dance six hours without thinking of fatigue, but is very willing to pay a good day's wages for the privilege.

There are not many kinds of work harder than rowing a boat; but give a man genial companions, fine scenery, and a pleasant excursion, and he will never think of fatigue. Dragging a fire-engine through the streets, working the machine, and fighting a fire, call forth great muscular exertion; yet how nobly is it performed, without wages, by men who are incited by enthusiasm, cheered by association, and enticed by variety!

There is no kind of exertion that is not tiresome by monotony and solitude; there is none that cannot be made delightful by variety and social enjoyment; and if we add to these the spirit of rivalry, or honorable competition, we find enthusiasm and pleasure.

What kind of labor tasks the powers of exertion more than a game of cricket? yet cricket is play, because it combines association and competition. Reaping and mowing matches have a similar excitement.

In Europe, the harvest-time and the vintage are seasons of joy and festivity, though they involve the hardest labor of the year. The vintage especially is a great festival. Men, women, and children work from morning till night, day after day, gathering the grapes and carrying them to the wine-press. Ladies and gentlemen, from the cities, come to witness and join in the labor. The laborers sing together in chorus, and one group answers to another. At the wine-press is stationed a little band of music, for there the work is hardest; but the strongest young fellows leap into the press with their naked feet, and dance the red wine out of the bursting grapes. The labor would be terribly fatiguing without these auxiliaries; but with them it is mere sport.

Children are never tired of their games, although they involve great exertion. But oblige a boy to play alone, or to continue a game ten hours a day, and he would be tired enough.

Now, what is wanting to make industry attractive? Give variety, society, and rivalry, and all work is but play. Is not this the solution of the problem? — *N. Y. Disp.*

THE ONION.

MR. EDITOR: There are three varieties of this vegetable cultivated in this region. The *allium cepa* is a biennial, and is highly esteemed as a salad. To insure a good crop, the seed should be sown early in the spring. The soil selected should be of a light, loamy texture, approximating to sand, and so prepared as to enable it to retain a considerable degree

of heat without becoming dry or excessively parched during drought. There are, however, few vegetables which require less moisture, or to the full and perfect development of which the principle of heat is more strictly necessary or indispensable. About midsummer, the onion pauses in its growth. At this stage, it should be taken up and stored; for if it is permitted to remain longer in the soil, its value for culinary purposes will be deteriorated, if not destroyed.

The *allium cepa* is one of the few cultivated vegetables which admit of being changed from biennials to triennials. This is effected simply by sowing the seeds quite late in the season, and in close proximity, the first summer, on poor or sterile soil, and transplanting them in the spring of the second season. Onions managed in this way are sometimes called "*scallions*." They are much more mild and agreeable to the palate, beside presenting a much more symmetrical and perfect development in the bulb. When treated in this way, they will not run to seed till the fall of the third year. The best manure for onions, with which I am acquainted, is gypsum, soot, ashes, and charcoal. Stimulated by frequent applications of these, the onion will succeed well on the same soil for many consecutive years. It is asserted, indeed, and on credible authority, that a piece of soil was shown, some years since, in Scotland, which had been cultivated in this plant for a period of eighty years; and the last crop taken was, it is said, as good, to all appearance, as any of the preceding ones of which the then proprietor had any recollection.

THE POTATO ONION, (*allium aggregatum*.) — This is another species of the onion tribe. It is wonderfully prolific. It does not, however, like the *allium cepa*, produce one large, distinct bulb, but radiates into numerous offsets, each of which is nearly the size of a small orange. This vegetable is perhaps as extensively admired as the common onion, but is preserved with much greater difficulty. The rule commonly observed in cultivating it, by those who have had the most experience in the business, is, we believe, to plant the smallest "*cloves*" on the shortest day, and to take in the crop on the longest.

THE TREE ONION, (*allium Canadensis*.) — This is a "tall growing plant," and should be provided with a support in order to prevent injury from winds. Small bulbs are produced both at the top and bottom of the stems. The latter are said to be preferable to the former in many respects, especially for pickling. The small bulbs may be set either in the fall or spring, and the crop, with proper care and attention in cultivating it, will be ready for harvesting by midsummer.

In cultivating the common onion, I do not consider it necessary to plough or dig the soil. With a common iron-tooth rake, I lightly stir the surface to the depth of two inches, and, having formed the lines with a common seed rake, sow the seed, and cover it with the hoe or hand. The roller is then applied to level and compress the surface soil, and a dressing of gypsum, soot and house ashes, (equal parts,) applied at night, or just before a rain. As soon as the plants make their appearance, another application of the same mixture is given; a third follows after weeding. The seed should be soaked from twenty-four to thirty-six hours before sowing in house ley, or water in which there is some principle capable of softening the pericarp which is remarkably indurated, especially when the seed is old.

A NEW ENGLANDER.

— *Germantown Telegraph.*

While the earth remaineth, seed time and harvest shall not cease.

AGRICULTURAL SCHOOLS.

We make the following extracts from the report of the committee on agriculture in the New York Assembly, to whom was referred so much of the governor's message as related to agriculture, and the memorial of the New York State Agricultural Society for the establishment of an agricultural school.

The importance of the farming interest in our state is manifest; it lies at the foundation of all our prosperity as a people. We are, and of necessity must be, an agricultural people; and it becomes us to inquire in what manner this great interest can best be sustained and advanced. It is a matter of congratulation that, through the efforts of the State Agricultural Society and the county societies, a very apparent advance has been made, and the interest in these associations is increasing yearly. The Transactions of the State Society, which are annually published, are exciting a wide-spread influence, not among our farmers only, but among all classes of our citizens. The two last volumes published have received the approbation of the entire community, and the demand which is made for them shows how efficient they are becoming as aids to the great agricultural interest of the state. In the opinion of the committee, no appropriation of the legislature is exciting such an extended influence for good.

While all these facilities are being appreciated by the farmer, an increasing interest has been manifested for several years on the subject of agricultural education. Not a session of the legislature has passed for several years without having their attention directed to this subject; and so strong has that feeling become, that, his excellency the governor, in his message, in obedience, as we believe, to the will of the people, thus directs our attention to this all important interest: "The history of this state evinces that its legislature have not been content to confine the exercise of its powers to the mere enactment of laws for the administration of the ordinary functions of government, or for the suppression of crime; its canals and other public works, its schools and institutions of learning, are proud evidences of a determination to promote the interest of its commerce and trade, and the moral improvement and happiness of the people, by acts of munificent but judicious legislation. We have long recognized it as a high and holy duty of civilized government to provide for the general dissemination of learning, to foster the enterprise of its people, to develop the resources of the state, to encourage its industry, and to secure to that industry its surest and most ample rewards. Much has been done to effect these ends. A noble fund has been provided, and our common schools and academies are sowing broadcast the seeds of learning. The higher branches of science and the arts have not been neglected. The endowments of colleges and universities have generally been liberal, and the rich return of these institutions, in the advancement of good scholarship, of profound learning, and of liberal and lofty science, is the surest evidence of the wisdom of the past liberality of the state, and the strongest incentive to its future continuance. I think the time has arrived when the state is called upon to make provision for the advancement of agricultural science, and of knowledge in the mechanic arts. Of late years, the science of agriculture has received much attention, and its influence, in combination with the practical labor of those engaged in the ennobling pursuits of husbandry, has lessened the toil and increased the returns of the tillers of the soil. Similar influences have produced similar results with respect to the mechanic arts. If the wealth, and power, and independence of a nation are to be estimated by its ability to supply from within itself its most essential

wants, and from its abundance to minister to the wants of others, it is both wise and patriotic for the state to aid the advancement of those particular branches of knowledge more immediately bearing upon the pursuits of the great producing classes.

"In this view I cannot too strongly recommend the endowment by the state of an agricultural school, and a school for instruction in the mechanic arts. I would suggest an annual appropriation, to be expended under the direction of the Regents of the University, for instruction in the several branches of learning connected with agriculture and the mechanic arts. The appropriation should be sufficient to secure the best talents to test the utility of the plan, and if deemed expedient, its duration may in the first instance be limited."

The State Society, at their annual meeting, represented by delegates and others from all parts of the state, unanimously united in the recommendation of the governor, and we have not as yet heard the first intimation that it is not in accordance with the wishes of the people.

That science is destined to contribute largely to the advancement of the agricultural interest, cannot, we think, be questioned. The application of mind, rightly cultivated, to the subject of agriculture, cannot but lead to its improvement. In every branch of the operations of the farm, intelligence in the farmer can be applied with the most beneficial results. It cannot in truth be doubted that the course of education which is pursued at our higher seminaries of learning is not suited to qualify those who design to engage in the ordinary pursuits of life; and it is within the experience of every well informed man, that those who have come from our institutions loaded with honors, have often proved entirely unqualified for the common pursuits of life, and have been compelled to undergo another education to fit them for pursuits which require an education of a practical character, and an adaptation to the every-day business of our growing country. We need, then, an education which will fit a man for the every-day realities of life; and to accomplish this, an institution must be established for the cultivation of those practical sciences which will enable those who are to be the practical men of our country, to secure an education that will not only enable them rightly to discharge their duties in their profession or pursuit, but will at the same time fit them to occupy any station in the government of the state or nation equally with those who have been educated for professional life at our present institutions.

It cannot be doubted that many of the arts and sciences of the present day, which are claiming the attention of every well informed man, are the creation of our own times, and are not to be found in the systems of education established in by-gone ages, and which in the main remain now as they were established centuries ago. Chemistry, mineralogy, geology, botany, electricity, are almost all of our own time; at least they are within the recollection of our old men, many of whom can point to the day of their birth. Their importance, however, is beginning to be felt, and no man can be said to be thoroughly prepared to grapple with the requirements of this advancing age, unless practically acquainted with acquirements of modern date. All of these acquirements can be applied with most gratifying results to agriculture; and its advancement is to depend, in our judgment, upon facilities being afforded to attain that information which now is not to be attained by the great mass of the people. An institution which should have for its object the teaching of these and kindred branches connected with practical agriculture, is, in our opinion, demanded both by the wants and the desires of that all-important portion of our citizens, the agricultural and mechanical classes.

PEA BUGS.

Various remedies have been suggested to get rid of the pea bug, such as scalding the seed, putting it in bottles hermetically sealed, &c. The first has its objections, and the second retards the growth and exit of the bug until after planting time, but does not in all cases destroy it, unless more air is abstracted from the bottles than can well be done without apparatus. A certain way is, to gather in one year your seed peas for two, put them in separate bottles, and leave the bottles for the second year corked up until you want the peas to plant. Peas lose none of their vitality by being kept, (they have been found to grow when taken out of an Egyptian mummy,) and it is a question whether, like melon seed, they are not all the better for keeping. A. H.

MEADVILLE, PENN., 1848.

COVERING THE SOIL ABOUT FRUIT TREES.

I have noticed with interest the remarks of Mr. Cleveland and others in this journal on the subject of covering the surface of the soil with substances to keep it of a uniform state of moisture, &c.

I will add my mite in favor of this process. I adopted the same plan last spring, covering the ground with straw two inches deep, laying it down smoothly and closely beneath the trees for a space as large in diameter as the spread of the branches.

The result has so far exceeded my expectations, that I am tempted to believe that there must be some stimulating as well as protecting influence in the straw. I have gathered from a few quince and plum trees (the only ones to which the application was made) fruit of nearly double the size of that from other trees in the same soil; and the plums held their fruit better than I ever had any do before on my premises. Yours,

A CONSTANT READER.

PHILADELPHIA, Jan. 1849.

—*Downing's Horticulturist.*

AGRICULTURAL SCHOOL.

At Mount Airy, seven miles from Philadelphia, there is an agricultural institute, where agriculture is thoroughly taught on an experimental farm of seventy acres; and in addition to agriculture, instruction is given, by competent instructors, in the English elementary branches, in mathematics and physics, in elementary and analytical geology, in botany, zoölogy, and entomology.

DOG POWER.

The Scientific American contains a notice of a dog power, consisting of a wheel eleven feet in diameter, inside of which the dog works like a squirrel in his cage. The gudgeons turn on friction rollers. This power is applied to a circular saw, a lathe, and several other operations, such as churning, pumping, and washing. It is said to be much superior to the old one so long in use for churning.

BEWARE OF THE RING BONE.

If colts stand on a plank, or any hard floor that is not well littered, they will be subject to the ring bone. When breeding horses, we left the floor of the colts' stables of the soil over which they were built. If this should be a deep loam, or of a clayey texture, then remove the soil about two feet deep,

and replace it with sand, or the finest gravel to be obtained. Colts should always be let out to exercise in a yard, or open space, every day, during the winter, when not particularly stormy; and in this yard there should not be older horses, or any horned cattle which can do them injury. Being very playful, they are more apt to provoke attacks upon them than other animals. — *American Agriculturist.*

For the *New England Farmer.*

SPRING.

Wake the glad echoes of pleasure and mirth!
Spring in her beauty revisits the earth!
On hill side and valley her footsteps are seen;
She spreads o'er earth's bosom a mantle of green.
'Tis Spring — glorious Spring.

List! what sweet music is filling the air!
See the pure flowerets so fragrant and fair!
Hear the glad voices of murmuring streams!
See the bright sun with his radiant beams.
'Tis Spring — beautiful Spring.

O, how my heart leaps in gladness to greet
Spring, with gay birds and fair blossoms replete:
With her soft, sighing winds and bright rivulets free,
There's no season so pleasant — so lovely to me,
As Spring — glorious Spring.

LEBANON, CT.

E. C. L.

THE OLIO.

CHURCH PSALMODY. — For the benefit of many choirs who habitually drawl or jam their words so as to render them utterly unintelligible to the hearer, we give them a specimen of a line we heard sung once on a time.

READ. "Life is a shadow! — how it flies!"
SUNG. "Life is a *shad* — O, how it flies!"

"When I am dead," said Napoleon, "my soul will return to France, and dwell in the hearts of the French people, like thunder in the clouds of heaven, and throb with ceaseless strife in new revolutions."

The excesses of our youth are drafts upon our old age, payable with interest.

A cheerful spirit makes labor light and sleep sweet, and all around happy, which is much better than being only rich.

Profane language is to conversation what ten inch spikes would be to veneering — splitting, shivering, and defacing it. It is in bad taste, offensive to a majority, and gratifying to none.

In the space of 713 years, England and France were at war 262 years.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.

STEREOTYPED AT THE
BOSTON TYPE AND STEREOTYPE FOUNDRY.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, MAY 12, 1849.

NO. 11.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

PROMPTNESS.

THERE is no calling in which promptness is more important than in that of the cultivator. A great deal depends on doing every thing in the proper season. In vain to him come the various seasons, bringing seed time and harvest, if he be not ready to sow and reap at the proper time. A short delay in planting may affect the crop materially. If the land be naturally rather wet, a delay of one day in sowing, after it is sufficiently dry, and a storm ensuing, may cause a further delay of one or two weeks, in a wet period, and this may cause a late crop, and a failure from rust or blight.

In raising a root crop, a few days of procrastination may extend the time of sowing to the hot, dry season, and the consequence is often a failure of seeds, and the blame, justly due to neglect, may fall upon the seedsman.

A few days too late in destroying weeds, and often the labor will be twice as much; and this delay on one piece of land may cause delay in weeding the whole farm or plantation, and the consequence is, a large increase of labor, and often a depreciation in the crop for want of attention in due season. A farmer informed us that he was once too late in weeding an acre of carrots, and the weeds were so numerous and rank, that he found it the most economical way to plough the land, turn under the weeds, and sow anew.

In harvesting hay or grain, a single hour of delay may cause a loss of more than can be earned in a week. One day too late in gathering transient fruits, and a storm succeeding, the consequence may be the loss of the whole crop.

One day too late in cutting up a field of late corn, and the frost may kill it in the milk, so that it will not be worth harvesting; but if cut up and shocked, the crop might be fair. One day too late in gathering winter fruit, and a frost may destroy a large part. By leaving fruit out one day too late after harvesting, it may be spoiled by cold weather. A little too late in gathering cabbages, potatoes, and other roots, and a hard frost will enclose them, and Winter spread his white mantle over the earth.

A thousand cases may be named in which the

farmer suffers great loss by being too late. It is impossible for the cultivator to perform every operation at the very best point of time; but he should endeavor to do it, and make his arrangement so as not to have more work on hand than he can do at the proper season; and he should always consider that one day too late, may be the same as months too late, or forever too late.

THE FRUIT CONVENTION.

We would call the particular attention of our readers to the notice of the North American Pomological Convention, on page 166. These conventions of fruit-growers, from different sections of the country, by bringing together specimens of fruits and discussing their merits, and a conference of the members with each other, afford to those who attend, and to the public at large, peculiar advantages; and we hope that the enterprise will be duly encouraged both by societies and individuals.

By these associations, a new and valuable fruit may be made known to all parts of the country, and soon disseminated and fairly tested; and the question may be settled whether it is adapted to general cultivation, or only suited to particular soils and locations.

APPEARANCE OF FRUIT TREES.

The fruit trees, generally, look remarkably well this spring. The peach-trees and buds are killed less than usual; peaches set on elevated lands, as we have often recommended for this fruit, are very promising this season. As the crop of peaches will be light at the south, and in many parts of the Middle States, this fruit will, in New England, become more important than usual.

The statements made at the State House, by those who had drawn very hasty conclusions from partial observations, have had a bad effect in discouraging the raising of this excellent fruit, which, though uncertain in this section, is worthy of attention, as improvements may be made by selecting hardy varieties, and making a proper selection of location and soil.

ACKNOWLEDGMENTS.

From Mr. O. V. Hills, Leominster, a specimen of apples, medial size, roundish-oblong, mostly red, of a pleasant quality, and remarkable for long keeping. Mr. Hills makes the following remarks on this variety:—

I send you a box of apples: they are called Priest Sweeting by some, and Blue Sweeting by others, in this section. The oldest trees, in this neighborhood, were on the farm of a Mr. Priest; and it may have originated on his place, as I am unable to trace it any farther. This variety is much esteemed as a late-keeping winter sweetening in this vicinity, and there are many bearing trees of it in town. It will keep as long as the Roxbury Russet, and the trees bear bountifully every other year; it bears in even years. Of the flavor of the fruit you can judge on testing it.

Of Mr. Henry Little, East Mansfield, Tough Apple, which he values for its late keeping. As the best specimens were tried by a self-constituted committee, who have made no report, we cannot give an opinion on this fruit.

Of Mr. John Owen, Cambridge, a pleasant apple, a late keeper, raised in that vicinity.

We have had several late apples this season; but as some were rather past their time, and in some cases we had only one or two specimens, and but little information as to their growth, and bearing, and general fairness, we cannot judge of their comparative value, nor how they will compare with other late kinds previously introduced to the public. Our notices may lead to further investigation and trial.

From Colonel Libbeus Chase, Cornish, N. H., a few trees of the Shad Bush, (*Swamp Pyrus*), in some places called *Sugar Pear*, which are very acceptable, as we wish to try the effect of cultivation on them. We have seen the fruit of this shrub very fine in its wild state, and perhaps it may be improved by cultivation, and become one of the most valuable kinds. Other fruits have been greatly improved by culture, and by seedlings. In some cases, the pear has succeeded well on the Shad Bush, and the subject is worthy of more extensive trials. Reports on trials of this kind will be acceptable.

Of Mr. Salmon Buckminster, Lynn, an early blue potato, from New Hampshire, which he represents as very early. We will give it a fair trial with many other early varieties, and beg leave to report at some future day.

IMPORTANCE OF ROOT CULTURE.

MR. EDITOR: As I understand your new publication (the *Wool-Grower*) is intended for the benefit of the farming community, I propose to give my experience in the use of roots for cattle and hogs.

I grow beets, carrots, ruta bagas, and parsnips, and find there is no difference in the expense of cultivation of either. I find that the sugar beet produces the most milk, and the carrot and ruta bagas are best for fattening.

But the ruta бага is far the best for that purpose, and I am surprised that so valuable a root is not more generally grown in this country. I have fed a farrow cow on ruta bagas and ordinary hay, for two months this winter, and she made good beef, although I milked her a great part of the time; and I have

fed a breeding sow on them, and them only, for the last two months, and my neighbors say that she is too fat for breeding. But I consider that the parsnip is a most valuable root for cattle; and hogs prefer them to any other root, and we hear the carrot extolled, but no one grows the parsnip, and yet they are easier to raise, and certainly more valuable. But I am aware that they are a hard root to get up—a general complaint against them. But you can leave them in the ground all the winter, and dig them in the spring, and save housing them, which is no small consideration; and they come in well between hay and grass—the very time that they are wanted.

If any one thinks proper to try them, I know he will not repent it. Sow early, in rows eighteen inches apart, and thin them to eight inches in the rows. Any good wheat soil will suit them.

W. W.

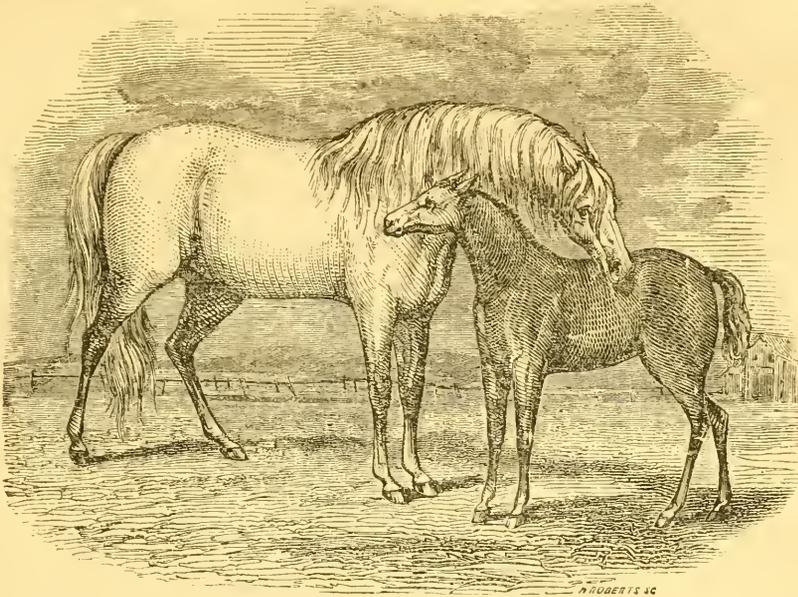
DARREN, GENESSEE CO., N. Y., Feb., 1849.
—*Wool-Grower*.

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

The cultivation of the parsnip, as food for stock, has not been generally tested. It is a hardy plant, and the yield, under good cultivation, is very large. This root is sweet and nutritious, and it is doubtless one of the most valuable for stock. In the Island of Guernsey, England, this root is cultivated very extensively for all kinds of stock, and with excellent success. It grows to a large size, sometimes attaining a yard in length. We hope that more attention will be given to the parsnip, that its true value may be better known.

CURIOUS FACTS IN NATURE.

Almost all animals come into the world covered with clothing adapted to their condition. Man is an exception, because he can clothe himself. He is not, however, the only exception; nor is he the only animal that can clothe itself. The larvæ or grub of that species of moth which is called the "clothes moth," manufactures, as soon as it comes into the world, a coat for itself, of hair or wool, and, for the protection of its tender skin, lines it with silk. This is a curious and singular fact. If this coat were the insect's natural covering, it would grow with the insect's growth; but it is artificial, and some provision, therefore, must be made for its enlargement, as the grub increases in size. If additional length only were required, the task would be easy; the covering being cylindrical, all that would be necessary would, indeed, very easily be effected by adding a ring or two at the top or bottom. But the coat must be widened, and this is an operation which is not so easily performed; but the little insect, as if it had learnt the art of tailoring, accomplishes its object with equal ease and success. It begins, as an experienced workman would do, by making two slits, one on each side, in order to give additional width, and then introduces two slips of the same materials, to fill up the same space; but it foresees, or at least acts as if it foresaw, that if the slits were made on each side from one end to the other at once, the coat would fall off: it proceeds, therefore, with caution, and at first slits its garments on each side only half way down, and, when it has completed the enlargement of that half, proceeds in like manner to enlarge the other. What more could be done by a skilful tailor? And be it observed that this operation is performed, not by imitation, for it never saw the thing done; nor by practice, for it is its first attempt. The facts are curious, and worthy of attention.



“LADY MESSENGER,” AND HER COLT, “MORGAN MESSENGER.”

The animals represented in the cut are descendants of the famous Messenger and Morgan horses. They were formerly owned, and the colt was bred, by S. W. Jewett, Esq., of Weybridge, Vt. For a few years, these fine animals have been the property of General S. M. Burrows, of Medina, Orleans county, N. Y. The sire of Morgan Messenger is Black Hawk, whose portrait and description are on our 19th page.

The English horse Messenger was imported into this country near the close of the last century. His stock was distinguished as strong and valuable roadsters, and fast trotters, and some of his progeny were eminent as racers. The fame of the Morgan race of horses is well known throughout the country.

The improvement of horses is a subject that receives too little attention. The cheapest sire is often used, and, almost every worthless jade of a mare is used as a breeder, when colts or horses are in good demand.

In many cases, a colt of an excellent race would cost, in the beginning, not more than ten or twelve dollars extra; and this would frequently add fifty or sixty dollars to the value of the full grown animal. Good blood stock will sell, at maturity, more than twice as high as a poor breed. Then it would be good economy to raise the best races only, even if the extra cost, in the beginning, is equal to the expense of keeping the young animal until he is fit for labor.

Why is so little attention paid to horses by our agricultural societies, and why are so few seen at our cattle shows, while the horse is selling in the market at a higher price than any other animal? We seldom

see more than half a dozen horses at any of our shows, and frequently there is not one on exhibition. This shows a deficiency somewhere. Either sufficient encouragement is not given for good horses, or there are but few animals worthy of being shown for a premium.

The very high price of good horses should encourage every one who raises this stock to pay great attention to the breed. This would be economy. He should exercise intelligence, and act upon the principles of science, in the beginning, and not depend wholly on hard labor for gain.

EFFECTS OF FOOD AND CLIMATE ON THE HORSE.

If a London dray horse be conveyed to Arabia, and subjected to the same influences to which the native horses of that country are exposed, it will, in the course of some generations, present the leading characters of the Arabian horse. The head will gradually diminish in size, the limbs will become fine and clear, the massive proportions of the whole body will disappear, and not only will the external form of the native horse be acquired, but, along with that, something also of their chivalrous disposition. If the race, thus improved, be again conveyed to Europe, it will gradually deteriorate, and, in the course of some generations, will again acquire all its original properties.

This fact we state upon the authority of Professor Pictet, of Geneva, and it seems to prove that the Arabian horse cannot exist in perfection in any of the western countries of Europe; and there can be but little doubt that the humidity of the climate, and the influences indirectly arising from that cause, are the principal reasons of this change. — *Journal of Agriculture.*

For the New England Farmer.

THE CRANBERRY.

MR. COLE: I wish to set a small piece of land to cranberry sods, and I wish to be informed if it is best to plough first. The piece is now in grass and moss. The soil is quite retentive of moisture, in consequence of its being underlaid by a hard pan of clay and gravel, about one foot below the surface. A hole dug to the hard pan, say twelve to eighteen inches deep, any time in the summer, will stand two thirds full of water. I have said it is covered with grass and moss. The grass is thin, and its place supplied by moss, for the reason that the soil is full of water. Another part is dry enough for corn, but a poor, sandy soil.

Should I dig holes in the turf and set the vines, or plough, and then set; and if I plough, should I manure first. Any information would be thankfully received.

Respectfully yours,

EDWIN BOOTH.

SPRINGFIELD, April 20, 1849.

EDITORIAL REMARKS.

In order to subdue the wild grasses and weeds, it will be better to plough the land and completely invert the sod, or furrow slice. Then much less labor will be required to subdue the grass and weeds, until the cranberry plants are strong enough to keep possession of the ground.

The retention of water a little below the surface is no disadvantage. Cranberries of spontaneous growth are common on marshes, meadows, and on the margin of ponds, where the land is often flowed with water, and where water stands through the season near the surface of the land.

That part that is dry enough for corn, should be manured with peat or mud, to render it more compact and retentive of moisture.

When the cranberry plants can be obtained conveniently, the surest way of transplanting is to take up sods, containing the vines, and set them, sods and all. It is better to make the rows about three feet apart, and set the sods or plants about two feet apart in the row, and the plants will extend over the land much sooner than when set four feet apart each way, as is the practice of some cultivators.

When the land is wet, and composed mostly of peat, mud, or clay, sand is the best manure. Animal or compost manure has not been found profitable for cranberries; and mineral manures would probably be no better. But sand is very useful; and this has often been shown by the superior production of cranberries on wet lands, where sand has been carried down by water from the high lands and deposited around cranberry vines.

For the New England Farmer.

SAW-FLY OF THE RASPBERRY.

MR. COLE: The season is now approaching when the insect world, awakened from their long sleep by the warm sunshine, will commence their depredations on our fruits and flowers; and all who would see fair fruits, and their gardens and orchards clothed in green verdure, must seek some means of defence against the destroyers.

The raspberry bushes in the vicinity of New Haven have, within a few years, been attacked by a species of saw-fly, which is gradually increasing in numbers, and deserves the attention of all who cultivate this fruit. It eats all the leaf except the ribs or woody part, which makes the bushes, in the first part of summer, look brown and withered. This caterpillar is about half an inch long, having three double rows of short, brown, branching or forked spines along the back, and three double rows of similar white spines along the side; the spines of each double row being set in alternate order. It has three pairs of legs and eight pairs of prop legs; the color is green, and so exactly like the leaf that a sharp view is required to discover it, as it lies along the ribs of the leaf. The caterpillar hatches about the second week in May; it is very minute and greenish white, but grows darker green at each moulting. It leaves the bushes about the time the fruit ripens, goes into the ground, (I have not yet ascertained how deep,) forms around itself an oval coat of earth cemented together, and remains over the winter.

During the first and second weeks in May, the bushes literally swarm with the perfect insect, which deposits its eggs in a small incision close to the ribs underside the leaf. The eggs are easily discovered, as the leaves are dotted with yellow on the upper side where they are.

The fly is black, with a small spot on each side of the collar; the middle of the back and the legs are dirty yellow, the hindermost feet being dusky; there is a small black dot near the tips of the fore wings; length of the body, nearly one fifth; expansion of the wings, one half of an inch. It is easily caught by hand, for when alarmed it remains motionless for a moment.

Some specimens have been sent to Dr. Harris, who says, "It appears to be an undescribed insect. It belongs to the genus *selandria*, and resembles in form and size the saw-fly of the rose, (*selandria blencampae rosea*;) but is referable to a different group of the genus, called *hoplocampa* by Hartig, on account of the spines with which the larva is armed. The insect may be named *selandria (hoplocampa) rubi*, the latter term being given in allusion to the scientific name (*rubus*) of the raspberry."

The *selandria rosea* has within the last three years increased to an alarming extent. Last summer, the rose bushes, in some gardens, had not a green leaf left upon them. Their owners, through ignorance, attributed it to blighting winds; some thought they were sun-burnt; if they had taken the trouble to examine the leaves, they would have found myriads of disgusting creatures, searing our most beautiful of flowers, like the autumn winds ere the summer's sun had begun to wane.

These slugs are light green and perfectly smooth; so ashes or lime does not readily stick to them: the most effectual mode of destroying them, is to pick them off and crush them, which is a slow, disagreeable process, but sure. The caterpillars of the raspberry may be shaken off by a sudden jar: they are eaten greedily by the chipping sparrow, better known as the chit-bird: therefore it is for our interest as well as pleasure to protect these agreeable little pets, and entice them, by scattering crumbs and seed, to alight about our doors.

GRACE DARLING.

NEW HAVEN, Ct., April 18, 1849.

EDITORIAL REMARKS.

Fortunately for the horticultural community, the family of the late and much lamented Judge Darling took a deep interest in the subjects in which he was engaged, which enables them to communicate

valuable facts from his experience and their own nice observation. On p. 116 is an interesting article from Mrs. Darling on grafting the grape. Miss Darling will oblige us by furnishing drawings of the saw-fly of the raspberry, and any other information on insects that destroy horticultural productions will be acceptable.

—◆—
For the New England Farmer.

FARMERS' SONS.

MR. COLE: It is quite too much the case that boys brought up on the farm are required to labor with tools quite ill suited to their age and strength. Farmers are very apt to give their boys implements to work with which have been thrown by as unfit for further use, and altogether too heavy for their strength. I well remember the first time I was set to mowing. It was with an old, worn-out scythe, (heavy enough and long enough for a strong man;) but still I thought it a very pretty notion to mow, even with an *old* scythe. This is one reason why boys dislike farming, and prefer some other kind of business. A farmer might as well attempt to break a colt or a yoke of steers after the same manner, by attaching them to wagons heavy enough for old and well disciplined teams.

Boys at a very early age may be of essential service on a farm, provided they are rightly managed. Their work should be light, and should be performed with light tools. How many boys leave their homes for no other reason than because they are overtaken, and no pains taken to provide for them light and handy implements to work with! Every boy whose father designs him to become a farmer, should, when of suitable age, have his hoe, his shovel, rake, wheelbarrow, and other things necessary for his business. Thus equipped, how proud the little fellows will feel! Each should have his little spot of ground set off to him every spring, to manage and till after his own fashion. How natural for every one to have something he can call his own, and especially boys. If each has his little patch of ground to plant, how much pride he will take in working it! and how much interest will be manifested in the growth of the various crops with which it is planted! To have an interest, boys should have an object; and if farmers would train their *sons* farmers, they should interest themselves in their behalf, encourage them by their assistance and approval; and by so doing, we shall not only have more farmers, but better ones.

A. TODD.

SMITHFIELD, R. I., April, 2.

—◆—
For the New England Farmer.

ON THE VARIETIES OF POTATOES AND PEACHES FROM SEED.

I noticed in No. 1 of your paper some remarks on the different kinds of potatoes raised from the seed, to which I could append some of my experiments, to demonstrate the fact, that there is a way, by which the same, and only the same, kind can be raised from the potato ball, and another way, by which a great variety will be produced; also a similar fact in regard to peach stones, conformably to one of nature's laws.

Yours truly,
BENJAMIN WILLARD.

WILBRAHAM, MASS.

EDITORIAL REMARKS.

We have made but few experiments on raising potatoes from seed; but we usually find a great

variety. This is owing, in some measure, to our selecting seed when various kinds are grown together for the purpose of obtaining new kinds by crosses.

It has been stated by some cultivators, that the seeds from the same potato ball or apple will yield different varieties of potatoes. Perhaps the Rev. Mr. Willard will oblige the agricultural community by furnishing facts on this subject. His views on raising peach-trees from the seed will be very acceptable also.

—◆—
For the New England Farmer.

S. W. COLE, Esq. Dear Sir: I have been trying in vain, for some time past, to find something on the subject of improving, reclaiming, or bringing into English grass, salt marsh or meadow. I have it in my power, with but small outlay, to exclude the salt water from several acres, which is now worth only a nominal value; and, as ploughing seems out of the question, I am in doubt as to the proper plan of procedure. Would fresh water, standing for a length of time, cause the roots to rot? or would sand carted on to the marsh produce any desirable effect? If your experience enables you to give the desired information through the columns of your paper, you will greatly oblige one who sends this, and will perhaps furnish something not altogether unacceptable to some of the rest of your readers.

Very respectfully,

A SUBSCRIBER.

PORTLAND, ME., May 2, 1849.

EDITORIAL REMARKS.

Some lands in this region, that have been gained from the ocean by diking, are very valuable for tillage and mowing, producing almost every kind of crop common to farming. Draining should follow diking, and then the land will become sufficiently hard and dry to admit of ploughing. On most reclaimed marshes, sand and gravel are necessary, both to render the land drier, and to furnish the proper supply of food for plants, silex or sand being an important ingredient, particularly in corn and other grain. It is this element that gives strength and firmness to the stalk. Liberal manuring is very necessary on reclaimed marshes, as the soil is usually rather moist and cool.

We have made a few general remarks only, and would request our readers, who have experience in the matter, to give detailed accounts of their operations.

—◆—
For the New England Farmer.

SPENT DYE-STUFF FOR MANURE.

"Are spent dye-stuffs from the manufactories good for manure?" S.

All animal and vegetable substances, properly prepared, are valuable for manure. Dye-stuffs, even the refuse or waste, contain much tannin or astringent principle, that is injurious if applied immediately to the growing vegetable. When this is destroyed or neutralized, and the whole mass becomes decayed, it makes a good manure.

Time will effect the desired object, or, by the use of ashes or lime, and other substances that will

produce heat, and of course a ready decomposition, the process of preparation may be hastened.

—◆—
For the New England Farmer.

WOOL WASTE FOR MANURE.

"Is wool waste, or the sweepings of the mill, of any value as a fertilizer? It contains some oil, which is said to be valuable for crops."

Waste wool,—well decomposed, which may be effected in a short time by the use of alkalies, and the sooner for its containing oil, and the manure will be the richer for the oil—is a valuable manure. These substances are used by farmers in the vicinity of Lowell with excellent success.

NORTH AMERICAN POMOLOGICAL CONVENTION.

The undersigned, a committee of the above Convention, who were appointed at the meeting held in Buffalo, last September, to report such plans for the organization of future conventions—should it be deemed advisable to hold them—as might be deemed necessary to carry out successfully the objects for which they were to meet, agreed, after consultation, as part of their plan, to appoint committees for each state, territory, and the Canadas, whose duty it should be to report the results of their observations and consultations in relation to matters suggested for their action in a circular, (which was issued by us and sent to each one of them,) on the first day of the assemblage of the Convention, which was, by unanimous resolution, agreed should be held in the autumn of 1849.

The committee have had their attention called to an editorial in the Horticulturist for March, in which it is stated that the North American Pomological Convention is a defunct convention, and that the state committees have received the compliment from a committee which does not exist, or by an authority unknown. Without intending in any way to comment on the article alluded to, the committee think it their duty to remark, that by a perusal of the report of the proceedings of the Buffalo Convention, it will be seen that the report of this committee, making the Convention a national and a permanent one, was adopted unanimously; that it is entirely unconnected with the New York State Agricultural Society, and that the designation of the time and place for its next meeting, where the great fair of that Society is to be held, was done for the better accommodation of the public who are in the habit of attending it from all parts of the country, and also as a compliment to that society, in acknowledgment of the great benefit they had conferred on horticulture, by being the first to move in calling a National Pomological Convention. The committee, owing to the hurried close of the Convention at Buffalo, had not time to concoct, or submit fully, their plans for the consideration of the Convention, and in doing it thus far afterwards, they conceive that they are carrying out the true spirit and intent of their appointment, and that their action will meet with the approbation of all concerned.

The committee therefore hope that the gentlemen appointed will not be deterred by the article above alluded to, from attention to the several duties which have been submitted for their action, as the North American Pomological Convention will convene at Syracuse, in the state of New York, on the 14th day of September next, at 10 o'clock, A. M.—it being the day succeeding the closing of the annual fair of the New York State Agricultural Society.

Pomological, horticultural, agricultural, and kindred societies, or associations, throughout this continent, are requested to send delegates to the Convention; and gentlemen resident in vicinities where no societies exist, who take interest in the advancement of pomological science, are also invited to attend.

J. D. G. NELSON, *Indiana, Chairman.*

JAMES DOUGALL, *Canada.*

HERMAN WENDELL, M. D., *N. York.*

J. C. HOLMES, *Michigan.*

LEWIS F. ALLEN, *New York.*

F. R. ELLIOTT, *Ohio.*

N. GOODSSELL, *New York.*

March, 1849.

} Committee.

CIRCULAR.

At the meeting of the POMOLOGICAL CONVENTION, held at Buffalo, September, 1848, the following resolutions were adopted:—

"Resolved, That hereafter an annual assemblage or convention shall be held under the name of the "NORTH AMERICAN POMOLOGICAL CONVENTION."

"Resolved, That this Convention shall be held, in the coming year of 1849, in the town or city in which the New York State Agricultural Fair may be held—to convene its session the first day succeeding the closing of the Fair—and that the recording secretary of the New York State Agricultural Society shall be intrusted with the charge, and respectfully solicited to give due notice of the time of meeting, by means of agricultural journals, and cards of invitation to gentlemen pomologists and horticultural societies throughout the Union and the Canadas, that they may send delegates, or attend and bring or send specimens of fruits for exhibition."

The annual Show and Fair of the New York State Agricultural Society having been fixed for the 11th, 12th, and 13th of September next, at the city of Syracuse, I do, in compliance with the request contained in the above resolution, hereby give notice of the meeting of the NORTH AMERICAN POMOLOGICAL CONVENTION, at the city of Syracuse, on Friday, the 14th of September next—the day succeeding the Show of the New York State Agricultural Society; and on behalf of the said Convention, extend a cordial invitation to yourself to attend, and the Society with which you are connected to send delegates to the Convention, and to forward specimens of fruits for exhibition.

Any fruits that may be sent can be directed to the care of P. N. RUST, Esq., Syracuse.

B. P. JOHNSON,

Sec. N. Y. State Ag. Society.

ALBANY, April 6, 1849.

DOMESTIC FISH PONDS.

We are surprised our country friends do not pay more attention to the subject of fish ponds. Many of them have, on some part of their estates, either natural ponds, or small streams running through narrow valleys, which may be dammed at a trifling expense, and occupy but a comparatively small surface of land, and which, in many cases, is entirely worthless. These ponds should be fed with living streams or springs. The former are preferable, as they bring to the pond supplies of seeds, vegetables, roots, mud, &c., on which many of the finny tribes subsist. Aquatic plants, insects of various kinds, and *infusorie* are also soon generated in the pond, and supply them with an adequate amount of food. Wherever this is deficient for the inmates, artificial food may be added, as bread, decayed grains, vegetables, meat, and the like. They may be soon taught to come at call, as by the tinkling of a bell, the blast of a horn, the beat of a drum, or some musical instru-

ments, and they will thus gather round their food as soon as thrown in. Many species of fish subsist entirely by suction, as the shad, the sucker, &c.; and it is policy to have separate ponds for such of these as may be wanted for use. Others, and by far the larger part, are predatory, and subsist almost entirely on other fish, as the pike, pickerel, &c.; and these require a stock of smaller fry to supply them adequately with food.

Some experiments have been made with the shad and other salt-water fish in acclimatizing them in fresh water, and with entire success. A friend, who has several fish ponds on his estate on the Hudson, says they have bred with him the second year they were placed there. He occasionally supplied them with salt, when they would come about the deposit, and seem to enjoy the brackish water while the salt remained. When deprived of this, some of the original shad died; but whether owing to this or some other cause, it is not certain. The younger ones seem to thrive in water entirely fresh. He has also domesticated several kinds of fresh-water fish, some of which have been imported from the European waters, as the carp and tench; but most of them are the best varieties from our inland lakes. Some of them have become such pets, and so familiarly answer to his call, that he has a great repugnance in preparing them for his table, though his friends, to whom he frequently sends them, have no such scruples, and pronounce them delicious. He tells a good story of harnessing a nine-foot sturgeon, transferred from the river to his domains. He has properly adjusted straps, so fitted as not to interfere with his fins, to which a ring and trace is attached with a light cork buoy, so as always to be within reach. When disposed for a sail, he gets into his canoe, and quietly affixes a tow-line to the buoy; and as soon as the sturgeon feels a jerk, off he darts with railway speed, and whirls him round and round the pond till exhausted, when he rolls over on his back and halts. He is then disengaged from the canoe, and, after recovering from his sweat, bounds into the air six or eight feet, and off he darts for the quiet depths of the pond. Some honest Dutchmen, in his neighborhood, thinking this too good fun to be monopolized, tried the experiment with an untamed sturgeon in the Hudson; when, after a short time, he plunged downwards, drawing under the boat, men and all, who came near being drowned. They cursed their neighbor and his craft, and have never been known to attempt the experiment since. — *American Agriculturist*.

FLAX.

The attention of farmers in one of the agricultural districts in Maine, has lately been turned to the cultivation of flax, in consequence of an offer on the part of some capitalists to establish works in the neighborhood for rotting and dressing the flax. One condition on which the promise to establish such works was based was, that the farmers should agree to sow not less than one hundred acres. These works promised to pay twelve dollars per ton for the straw. Another inducement for its cultivation is a guaranty that the seed will readily sell for a dollar a bushel.

We do not know at what price the straw could be sold for in this valley. It would certainly be a valuable material for making paper, and a farmer at our elbow says that five dollars per ton for it would pay well. The seed would meet a ready sale in St. Louis, in any quantities, at a price varying from eighty-five cents to one dollar per bushel. The demand for linseed oil is very great, and is every year increasing; and a gentleman of this city, who consumes a large amount annually in the manufacture of white lead, assures us that the manufacture of linseed oil in this

city is a profitable business, and would be much more so, if the amount of flax seed brought to this market was great enough to permit the manufacture of oil on a much more extended scale.

Will some of our agricultural brethren give us their experience in flax-growing — its cost, its product in seed and straw, and the expense of rotting and dressing? If the straw was dressed for the use of paper-makers only, it would require no very complicated or expensive machinery. — *Valley Farmer*.

RULES IN RAISING POULTRY.

1. All young chickens, ducks, and turkeys, should be kept under cover, out of the weather, during rainy seasons.

2. Twice or thrice a week, pepper, shallots, shives, or garlic should be mixed up with their food.

3. A small lump of assafetida should be placed in the pan in which their water is given them to drink.

4. Whenever they manifest disease, by the drooping of the wings or any other outward sign of ill-health, a little assafetida, broken into small lumps, should be mixed with their food.

5. Chickens which are kept from the dunghill while young, seldom have the gapes; therefore it should be the object of those who have the charge of them, so to confine the hens as to preclude their young from the range of barn or stable yards.

6. Should any of the chickens have the gapes, mix up small portions of assafetida, rhubarb, and pepper, in fresh butter, and give each chicken as much of the mixture as will lie upon one half the bowl of a small teaspoon.

7. For the *pip*, the following treatment is judicious: Take off the indurated covering on the point of the tongue, and give, twice a day, for two or three days, a piece of garlic the size of a pea. If garlic cannot be obtained, onion, shallot, or shives will answer; and if neither of these be convenient, two grains of black pepper, to be given in fresh butter, will answer.

8. For the *snuffles*, the same remedies as for the gapes will be found highly curative; but in addition to them, it will be necessary to melt a little assafetida in fresh butter, and rub the chicken about the nostrils, taking care to clean them out.

9. Grown-up ducks are sometimes taken off rapidly by convulsions. In such cases, four drops of rhubarb and four grains of cayenne pepper, mixed in fresh butter, should be administered. Last year we lost several by this disease, and this year the same symptoms manifested themselves among them; but we arrested the malady, without losing a single duck, by a dose of the above medicine to such as were ill. One of the ducks was at the time paralyzed, but was thus saved. — *Selected*.

PROGRESS OF AGRICULTURAL IMPROVEMENT.

We have been favored, by Dr. Joseph Stone, with an agricultural address delivered by him before the Hardwick Lyceum, from which we make the following extract:—

But when the rapid progress in the mechanic arts, in our manufactories, and in the application of steam to stationary machinery, and for the purposes of locomotives, are considered, it will at once be seen that, in rapidity of progress, agriculture has by no means kept pace with the subordinate occupations which it sustains.

Perhaps a reason for this may be found in the fact

that vast amounts of capital are invested in manufactories, in steamboats, and in railroads, and the proprietors and managers of these concerns are ever ready to confer a generous and substantial reward for any new improvement which will enhance their profits.

And this prospect of an ample reward stimulates the inventive genius of our countrymen to those ceaseless efforts which we have often seen resulting in surprising success.

But in relation to agriculture, if we except the invention of some useful implements of husbandry, the case is far otherwise. The man who labors and toils for its improvement, cannot go for his reward to rich capitalists, who have millions invested, and who are ready to pay thousands for the invention which shall add but a small percentage to their profits; but instead of this, he will probably be doomed to find his improvements adopted slowly and with many doubtful misgivings, and as a reward for his efforts, he will probably be compelled to rest contented with the satisfaction of doing a good action.

ANTIDOTE TO POISON IVY.

On the 154th page of this volume it is stated that a decoction of poison ivy is a preventive and a remedy against its effects. Mr. Zephaniah Breed, of Ware, N. H., informs us that he has tried it with success; but he recommends a more simple mode of using. He had occasionally been poisoned by this plant, until he practised putting a few of the tender leaves into his mouth, and chewing them, retaining them as a quid of tobacco, as he supposes, not using that vile weed. In this way he has been almost wholly protected against the effects of the poison, they being very slight indeed when he has been among this vine with this precaution.

He had a boy with him who was very liable to be poisoned with ivy, and he found that chewing a few leaves was a preventive. Mr. Breed gives his own experience, not knowing what the effect may be on those who are more subject than himself to injury from this poison vine.

POWER OF THE SOIL TO ABSORB ODORS.

It is well known that onions, if buried in the earth for a few days previous to being cooked, will have lost much of their rank flavor. Wild ducks, which are often too fishy in flavor to be good, may be rendered much more palatable by being wrapped in absorbent paper and buried in the ground for a few hours. Dried codfish loses much of its austerity of flavor (if we may coin a term) by similar treatment. During the plague, in Europe, clothing was often buried for a time to disinfect it. This absorbent property of the soil is due to the presence of carbonaceous matters; for clean sea-beach sand will produce no such results, while pulverized charcoal will act with much greater energy than common soil. On this principle, animal matters coated with uncatched ashes, and then buried in pulverulent peat or muck, will not only decompose without giving off offensive odors, but the muck will also, by absorbing the resulting gases arising from decomposition, be rendered highly valuable as a fertilizer. Dr. Dana says that a dead horse, if cut in pieces and treated as above, will render twenty loads of muck equal in quality to the best stable manure. — *Working Farmer.*

PROSPECTS OF THE NEXT CLIP.

The Wool-Grower contains a communication, over the signature of R. L., on this subject.

In regard to the prospect of the "next clip," in Maine, we can tell him it will be a *very small one*.

The sheep have *departed* from our borders. We know of some neighborhoods where, a few years ago, you could find a thousand sheep; now you will not find enough there to supply sufficient wool to make stocking yarn to furnish that same neighborhood.

We can take you into towns where, a few years ago, the woollen factories were buzzing night and day, and giving profitable employment to hundreds of industrious hands; now the spindles are rusting in idleness, and the workmen dispersed. Even those mills that are in operation, turn slowly, and every revolution of the wheel mourns dolefully of hard times.

Such is the prospect of the "next clip" in Maine. These are facts. We say nothing of the causes.

The writer above alluded to estimates, from the statistics and other data of 1810, that there will be, in 1850, thirty millions of sheep in the United States, and that the clip of that year will be seventy millions of pounds, and that the clip of this spring (1849) will be *sixty-six millions* of pounds. He thinks not over one fifth of this will be worked up at home, and that there will be, therefore, upwards of *fifty-three millions* for the manufacturer.

In remarking upon this statement, the editor thinks that the old stock of wool will be pretty well worked up; that the imports will be about fifteen millions of pounds, or say twenty millions. This, with the clip, deducting what will be worked up at home, will give seventy millions for the manufacturer. He then estimates the number of woollen factories in the United States at fifteen hundred; and allowing only two "sets" of machinery to each factory, they will require *two hundred and twenty-five thousand pounds* per day. They will thus work up *sixty-eight millions* during the year, thereby leaving a surplus of two millions "for *lee-way and variation*," as a sailor would say.

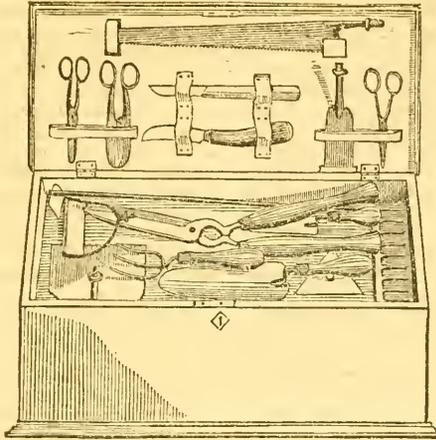
According to the above calculations, it is probable that the clip will all be wanted at home; but the price, as every one knows, must depend upon the price of fabrics, and the condition of the money market.

Without trenching on political ground, we presume we may be allowed to say, that it is unfortunate that the price of the fabric is regulated by the agents of the English manufacturer. Instead of having a home valuation to be attached to foreign fabrics which pay an *ad valorem* duty, — that is, a duty according to its value, — the value is sworn to by foreign agents *as it is in their country*, not in ours; and abundant experience proves that they consider a custom-house oath a mere farce, and the taking a false one there, the least heinous and most pardonable of all mortal sins. — *Maine Farmer.*

VEGETABLE MARROW.

Since the partial failure of the potato crop, the English farmers are turning their attention to the cultivation of this species of squash as food for hogs. Those who have tried it state that twenty tons may be raised per acre, and that when cooked it is found to be superior to most other vegetables as food for hogs. Its nutritive properties are equal to those of the ruta бага turnip. This vegetable is known by various names, such as the *Boston Marrow Squash*, *Midsummer Squash*, &c. — *Maine Farmer.*

In this region six or eight tons to the acre are considered a large crop. — *ED. OF NEW ENG. FARMER.*



HORTICULTURAL TOOL CHEST

This is a small, portable chest, containing a useful collection of tools, such as are generally used in managing trees, shrubs, or plants of any description. These articles are very convenient, and always at hand, when kept in a compact form, and neatly arranged in a chest, which is so light that it can be easily carried in the hand from one part of the garden to another, by the handle at the top. Such arrangement greatly facilitates labor, and aids in executing various operations in the neatest as well as in the most expeditious manner. This chest contains a pruning saw, pruning chisel, weeding hoe, garden rake, tree scraper, scuffle hoe, and hook, all of which are fitted to one handle, which may be screwed together or unscrewed, as required, packed into the chest, and locked up. It also contains twig cutter, vine scissors, flower gatherers, grafting chisel, grafting hammer, strawberry fork, transplanting trowel, weeding trowel, garden rule and line, grass shears, sliding pruning shears, pruning knife, and budding knives.

LABOR IS HONORABLE.

All labor is honorable. The *Great First Cause* works, Nature works, and every man who enjoys her fruits ought to hold it honorable to work. When shall the glorious time dawn that intelligence and true philanthropy shall annihilate the selfish distinction which pride has made between labor and idleness? May that auspicious day soon arrive when the worthless distinctions between mental and physical labor, which separate man from his fellow-man, shall cease to exist, and all the tenants of the earth meet as equal sovereigns of our common inheritance — the earth. — *Rodgers's Scientific Agriculture.*

FRUIT TREES BY ROAD SIDES.

The season for setting out trees has arrived. We would especially call the attention of farmers to setting out fruit trees by the road side. You accomplish two things by so doing. You adorn the country, and make it pleasant for yourself and others who travel

that road so adorned. If you select good winter fruit, you will in a few years have from those ornamental trees some profit, inasmuch as the fruit so obtained will come from a source that would otherwise be of no great avail to you. The trees, standing by the side of the wall or fence, will take up but little room, and will not hinder your cultivating the land, if you are so disposed. They will not deprive you of any grass or other crop which you may put upon the ground around them, and their roots, running partly into the road, will draw nourishment therefrom, which would not be of any use otherwise. — *Maine Farmer.*

CAMELS.

A correspondent of the Louisville Democrat proposes the use of the Bactrian camels for travelling to California, New Mexico, and Oregon. They would be very useful for carrying the mail. Good authorities state that they can carry one thousand pounds weight one hundred miles per day for eight or ten days in succession, and subsist on a scanty supply of the coarsest herbage, only requiring water once in two or three days. With the aid of this animal, the United States mail might be carried from St. Louis to Astoria, at the mouth of the Columbia River, in twenty days, or in a shorter time from the mouth of the Arkansas River to the harbor of San Francisco, in California. They could be got in their native country, Asia, and be brought by land to the Black Sea, and shipped for the United States direct.

In addition, it may be said, that the Bactrian or Asiatic camel would be useful in war, in the vast plains of the west. From their great power, quickness of motion, docility, and shape of their backs, they might be useful in carrying light pieces of artillery, and be trained to the use of them for their various purposes. This would be a very effective arm against the Indians. — *Selected.*

Would not the drawing of the plough be more beneficial to mankind than the carrying of a field-piece?

With a downright taste for fruits and flowers, a man may have occupation and amusement for years in a hundred feet square of good soil. — *Downing.*

TURKEYS.

Turkeys intended for breeders must be kept well during the winter. If put in good condition, however, during December, it takes but little feed to keep them so. Their nests for laying must be made with hay or oat straw, under cover, and be well protected from the weather, and from vermin. When incubation commences, turkeys must not be disturbed; and if she does not come from her nest for food and water, she must have both placed by her on the nest. When the young turkeys are hatched, they may be allowed to remain one day in the nest; or, if removed, let them be sheltered in a warm place, and plenty of straw for them to sit upon be provided, for they are now extremely liable to take cold. The second day, feed them with crumbs, or warm clabbered milk, mixed with a little Indian or barley meal. They must be kept up and fed in this way for two or three days, and longer, if the weather should be cold and rainy; but as soon as a warm and pleasant day comes, let them out at nine or ten o'clock, and shut them up at four; and this practice of letting them out and shutting them up must be followed for five or six weeks; and *on no account* let them get wet. When a young turkey begins to droop, there is but little hope for it. There is no danger of keeping them too warm. When they are five or six weeks old, put a little grease on their heads, to preserve them from vermin.

In an article published in the American Agriculturist, from the pen of Mr. Charles Starr, Jr., that gentleman remarks as follows:—

“Heretofore I have had so much difficulty in raising turkeys, as to be almost discouraged, but, of late, have been very successful, in consequence of pursuing the following mode recommended to me by a lady, who said that she had no trouble with them.

“When first hatched, give no food for twenty-four hours; then give a little curd made from buttermilk, increasing the quantity as they grow older. They should then be protected from the wet, and by no means have Indian meal. But with the curd, they may have, in moderate quantities, wheat bread soaked in buttermilk.

“I believe that Indian meal is fatal to the greater part of young turkeys, that die in the attempt to raise them.”—*Germantown Telegraph*.

REMARKS BY EDITOR NEW ENGLAND FARMER.

It is a common error to feed young fowls immediately after being hatched. Any person who has examined eggs in the various stages of incubation, sees at once the folly of this practice; for the last process, before leaving the shell, is the absorption of a good portion of matter by the almost perfect fowl, which serves as nutriment; so that the young fowls, like bees which leave the hive in swarming, have full stomachs to sustain them a day or two; hence, in both cases, that quietness and good humor that generally prevails.

From this wise provision of nature, the chick that first hatches is supported until the last of the brood is ready to leave the shell, which is frequently twenty-four hours later.

CLEANSING THE BARK OF FRUIT TREES.

This operation should be performed in early spring, as well as in midsummer. The rough, loose parts of the bark should be scraped off, as well as moss and other parasites. The bark should then be covered

with the following mixture, as high as the operator can reach, with an ordinary long-handled whitewash brush: five pounds whale oil soap, one pound fine salt, one pound fine sand, two pounds potash, two ounces nitrate of soda, dissolved or mixed with water to the consistency of cream, and thoroughly rubbed upon the bark.

Many kinds of insects are kept from trees by a solution of whale oil soap alone, and many such as are resident in the crevices of the bark are destroyed by salt. The fine sand is intended, during the rubbing, to scratch the outer coating of the bark, and thus assist the other ingredients for more perfect action. The potash and nitrate of soda will decompose or soften the dead parts of the bark, so that during the summer they will be thrown off by the healthy action of the growing bark. If the above mixture be applied in dry weather, it will become so hard as to remain during several showers, and thus have time to perform its office. Trees with smooth bark, such as the plum, many of the cherries, &c., should be rubbed with a wet, rough, woollen cloth, in a few hours after applying the mixture: this rubbing will cause the sand to clean the surface so perfectly as to give the bark an improved and more healthy surface. Trees so cleansed are not as likely to be revisited by insects as those left with their natural surfaces, nor are they as likely to become bark-bound. Indeed, we have never known a tree to exhibit the disease called *bark-bound*, the surface of the trunk of which had been softened by a soap wash in early spring. The cherry, apricot, peach, and nectarine are subject, when left to their natural state, to this disease, and it has usually been attributed to too rich or too moist a soil; and under-draining and slitting the bark lengthwise with the knife are the usual remedies. The one is expensive, and often impossible where choice trees are planted, and the other is barbarous and unsightly, causing exhalation of gum and consequent canker. In any case, a few applications of soap to the surface of the part *hide-bound* will remove the difficulty, and the mixture before recommended may be applied, slightly warmed, when required to soften the bark of a *hide-bound* tree.—*Working Farmer*.

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

In scraping trees in spring, there should be unusual care, as any injury to the live bark, at this season, is more liable to be permanent in its effects than at a later period. The bark and tree are full of sap in the spring; and when trees are injured, they are liable to turn black and become seriously affected, from the same wounds that would have no unfavorable effect after the tree is growing vigorously, and the sap has been measurably spent in the production of foliage and a new growth of wood. For these reasons, we object to pruning trees in spring, especially when large limbs are to be cut off, which often produces premature decay of the whole tree.

HYBRIDIZATION AND CROSS FECUNDATION OF PLANTS.

Hybridization, strictly speaking, is the art or act of obtaining an offspring or progeny between two different species of animals or plants; and *cross fecundation*, or *cross breeding*, is the production of a progeny or race between varieties of the same species. It was maintained by Buffon, Hunter, and other naturalists of the last century, and is yet assumed by many scientific men of the present day, that the hybrid offspring or progeny of two distinct species

of animals or plants is incapable of begetting or producing its kind; thus making hybridity the test of specific character. From this we may infer that the progeny of hybrid plants cannot produce seed; but that produced by cross fecundation may be regarded as fertile.

The observations and experience of practical gardeners and florists would seem to justify the following maxims, as affording some guide to the production of new varieties or races:—

1. The existence of sexes in plants is now universally acknowledged, as occurring in the same flower—in separate flowers on the same plant or tree—as well as in those of trees distinct from one another.

2. Plants nearly related—that is, closely similar in the structure of their several parts—are those only which will immediately impregnate with each other; but it is impossible, at present, to say what families of plants may or may not be brought into fertile union through intermediate crosses. Not long ago, the azalea and rhododendron were thought to be incapable of such union; but this opinion is now exploded; for the Pontic rhododendron (*R. ponticum*) has been fecundated with the pollen of the Chinese azalea, (*A. sinensis*), and the progeny between that evergreen and the last named deciduously leaved shrub is the previously unknown phenomenon, a yellow rhododendron. In like manner, the brassicas (cabbages, turnips, &c.) mixed freely with brassicas in all their gradations, as well as the cucurbitaceae, (melons, pumpkins, gourds, &c.) There are some exceptions, however, to this rule; for the beautiful pelargonium and the scarlet geranium, though nearly allied, according to the classification of modern botanists, have not, hitherto, been able to mix. Again, the raspberry and strawberry are regarded as first cousins; yet, after several attempts, they have not hybridized. The gooseberry and currant, too, are nearly related; still their alliance seems invincible, though tried by skillful hands.

3. The color of the future blossoms (not of those first hybridized) seems to be most influenced, though not invariably, by the male plant, if its seeds and flowers are darker than those of the female. Mr. Knight found, that, when the pollen of a colored blossomed pea was introduced into a white one, the whole of the future seeds were colored. But when the pollen of a white blossom was introduced to the stigma of a colored blossom, the whole of the future seeds were not white. Captain Thurtell, from lengthened observation and experiment, also informs us that he has always found the color and spot of the petals of the pelargonium to be more influenced by the male than by the female plant. On the contrary, however, he observed that the form of the petals follows most closely that of the male plant.

4. Large stature and robustness of habit, according to Mr. Knight, are transmitted to the progeny by either of the parent plants. Therefore it does not absolutely matter, for obtaining this characteristic, whether the plant, male or female, be large; but he generally found that the most robust female plant produced the finest result. When a good fruit or culinary vegetable is wanted, he recommends that the largest seed from the finest fruit or plant, that has ripened earliest and most perfectly, should always be selected. In stone fruits, if two kernels are in one stone, these give birth to inferior plants. The florists of the day, however, are opposed to Mr. Knight in their practice, as regards the hybridization or cross fecundation of ornamental flowers; for they recommend the weakest plants, and those that germinate last, where chastity of form and marking are required, to be taken the greatest care of, as they are sure to produce the most valuable flowers.

Mode of obtaining Varieties.—The most successful mode of obtaining good and very distinct varieties, is

to employ the pollen of a male flower, grown on another plant, from a distance, and not that bearing the female, or that in which the fecundation is to take place. When the plants are in flower, carefully extract with a pair of sharp-pointed scissors the anthers, if any, from the female flower from which you intend to produce seed, and also destroy all male flowers, or those having anthers, of the same species that are in the immediate vicinity, before they arrive at maturity, or your attempts will be of no avail; for Nature will have performed her part, and instead of a hybrid, you will have a natural progeny. In order further to avoid previous and undesired impregnation, the flower should be enclosed in a case covered with gauze, and thus continued until the process of hybridization is complete, to exclude insects, and the effects produced by strong currents of air before the desired pollen is ripe. Another effectual mode of preventing undesired impregnation is bringing the female plant into flower a little earlier than its congeners, and removing the anthers, as directed above. For the stigma will remain vigorous, if unimpregnated, for several days.

After extracting the anthers from the flowers you wish to bear seeds, carefully watch the progress of the stigma, and as soon as you find it in a condition to receive the pollen, select the matured anthers from a distance, and bring them in gentle contact with the stigma, to which a sufficient quantity of pollen will adhere. If a double flower should chance to have a fertile anther or two, these should be employed for fertilization, as the flowers of their progeny will almost be sure to be double. Although the fecundity of all the seed in one seed vessel may be secured by applying pollen only to one style, even where there are several, yet the quantity of pollen is by no means a matter of indifference. Koelreuter found, that from fifty to sixty globules of pollen were required to complete the impregnation of one flower of *Hibiscus sriacus*; but in *Mirabilis jalapa*, and *M. Lougfolia*, two or three globules were enough; and in the case of pelargoniums, Captain Thurtell says two or three globules are certainly sufficient.

In the course of the process, the seed vessel is not altered in appearance by impregnation from that of another plant; therefore no hasty conclusion of failure is justified by that want of change. It is easy to discern, however, whether the fecundation has been effected; for, when this is the case, the stigmas soon wither. The stigmas which have not received the pollen remain for a long time vigorous and green.

M. Haquin, a distinguished horticulturist at Liege, has impregnated flowers of the azalea with pollen kept six weeks; and camellias with pollen kept sixty-five days. He gathers the stamens just before the opening of the anthers, wraps them in writing paper, places them in a warm room for a day, collects the pollen they emit, and preserves it in sheet lead, in a cool, dry place. Mr. Jackson, of Cross Lane Nursery, near Bedale, states that he found the pollen of *rhododendron Smithii tigrinum* retain its fertilizing power even for twelve months. This property of pollen was verified by experiment, in Persia, by the elder Michaux, as early as the year 1782, in observing that the male flowers of the date (*Phoenix dactylifera*) will keep during the year, and yet impregnate the female.

New York, Feb. 3, 1849.

D. J. B.

—American Agriculturist.

The right depth and width of the furrow—the right kind and application of the seed—the right times of hoeing, and the right time of harvesting—are all matters depending upon the skill and judgment of the farmer.

Domestic Department.

A SHORT CHAPTER ON BREAD-MAKING. — At no period of our civil history has so much attention been directed to the best means of sustaining life, as at the present. The partial failure of the cereal and root crops in Europe, together with the rapid increase of their already crowded population, has led the chemist, the political economist, and the philanthropist to a clearer and more accurate investigation of the life-sustaining properties of the various articles commonly used as food.

The term "bread," in the broadest sense, can be applied to the main staple, in the support and nourishment of man; whether it be the "potatoes and point" of the Irishman; the ostrich, the puanacho, or the wild bull of the Buenos Ayrean Guacho; the blubber of the Greenlander; the cassava, banana, or sugar-cane of the West India negro; the hump steak of the prairie hunter. The rice of the gluttonous Siamese, the contents of the ample wallet well filled with dates of the Timbucto merchant, and the rich white bread of the American table, — all are to different individuals but so many different forms of "daily bread."

The French chemists have, by the most patient series of analyses, fixed the utmost alimentary limits of almost every article used as diet. Wheat, above all other things, stands preëminent as an article of food. With us, as a nation, it forms a most important part of life's comfort. The question before me now is as to the best way of deriving the entire nutritious substance of wheat when presented in the form of baked bread. That we fail in gaining the object by the use of fermentatives, such as yeast, leaven, &c., can be easily shown. The intelligent reader need not be told that fermentation cannot take place in any substance that does not contain sugar in large quantities, and in the proportion that sugar predominates will be the activity of the fermentation. In other words, the activity of the fermentation depends upon the strength or ability of the yeast or leaven to change or convert into carbonic acid gas the saccharine contained in the wheat. Experiments in this respect enable me to speak knowingly. The quantity of nutritious matter destroyed in getting what our wives call a "light raise," is as eight to one hundred; or, out of every one hundred pounds of flour, we destroy eight, while the balance is largely injured by the process.

Nor is the practice of raising bread by the use of *sakeratus* any better; indeed, it is infinitely worse. Why are ninety-nine out of every one hundred of the American people afflicted with poor teeth? Solely from the use of *sakeratus*, not "sweet" things, as many suppose. I am confident that the love of gain ought to lead us to abandon the use of the first ingredient, while the love of health, and, above all, a good set of teeth, should induce us to abstain from the use of the latter.

A sweeter and better kind of bread can be made by following the recipe given below. One trial, I am satisfied, will convince any one.

Three cups of flour;

Two teaspoonfuls of cream of tartar;

One teaspoonful of carbonate of soda, dissolved in hot water;

A little salt, and a small piece of butter or lard.

Mix with sweet milk, roll out and bake them quickly. Add a little sugar, and it makes a very nice, healthy cake for children. The same proportions may be carried out to make a large batch of bread.

By placing the bread, when taken from the oven, in a current of sweet, fresh air, it soon recovers the oxygen that was expelled from it while it was in the oven. No bread should ever be eaten while it is hot.

It is not fit for the stomach, and will certainly produce derangement, — such as flatulence, acidity, biliousness, &c. It is a want of economy to use warm bread. Many persons will eat three or four warm biscuits, while seldom will they eat more than two when they are cold; and yet the two cold biscuits contain more nourishment than the four warm ones. — *Valley Farmer.*

STEWED CELERY. — The Horticulturist recommends highly stewed celery. Cut the blanched or white portion of the celery stalks in pieces about an inch in length, and put them in a saucepan over the fire, with milk and water, in equal proportions, barely sufficient to cover them; add a little salt, and let them stew gently, until perfectly tender. Then take out the celery, add a piece of butter to the liquid it was boiled in, thicken it slightly with flour, pour it over the celery, and serve it up.

Boys' Department.

UTILITY OF FROGS. — I remember somewhere of reading that, many and many years ago, a number of frolicsome boys were one day watching frogs, at the side of a pond, and that, as any of them put their heads above the water, they pelted them down again with stones. One of the frogs, appealing to the humanity of the boys, made this striking observation: "Children, you do not consider that, though this may be sport to you, it is death to us." It is to be feared that the same propensity to maim and torture these poor, innocent reptiles prevails to some extent with the youth at the present day. But this is cruel, wicked, wrong; for the usefulness of frogs about our gardens and fields can scarcely be too highly estimated, as their food consists almost exclusively of worms, slugs, insects, and other small living things, which they seek among the plants and grass on the land.

Frogs, like the toad, it is well known, are hatched from eggs, laid early in the spring in shallow pools or near the edges of sluggish streams, which, when taken together, are called "spawn," and often resemble a mass of boiled sago, sprinkled with a large number of small black dots. The young tadpole, which is hatched from them, passes through several metamorphoses, and at the end of some weeks becomes a "gaping, wide-mouthed, waddling frog." If you examine his tongue, you will observe that, instead of being rooted at the throat, as in other animals, it is fastened to his under lip, with its point directed towards the stomach. Nevertheless, this singular arrangement is well suited to his purposes, for his tongue, as an organ of prehension, is very effective, being flat, soft, and long, and covered with a viscid fluid, which enables him more readily to catch and secure his prey. When he wishes to use it, he lowers his under jaw, ejects and retracts it with the rapidity of light.

Instead of torturing these poor reptiles, it is recommended that every lad in the country give place, in some snug corner in the garden, for a vessel holding a few gallons of water, buried nearly level with the surface of the ground, in which may be put one or more frogs, to be petted and cherished like any other domestic animal, and where its curious and interesting habits may be studied at leisure.

— *Amer. Agriculturist.*

RANA.

A THOUGHT FOR EVERY DAY. — We see not, in this life, the end of human actions — their influence never dies. In every widening circle, it reaches

beyond the grave. Time determines what shall be our condition in that world. Every morning, when we go forth, we lay the moulding hand on our destiny; and every evening, when we have done, we have left a deathless impress upon our character. We touch not a wire but vibrate in eternity — not a voice but reports at the throne of God. Let youth especially think of these things, and let every one remember that in this world, where character is in its formation state, it is a serious thing to think, to speak, to act.

Health.

FOR THE HEADACHE.—Sage tea will often give relief. It is stimulating, causing a rapid circulation of blood in the veins, which relieves the brain from a flow to that organ; it also causes perspiration, when taken freely. With food, sage tea is an excellent substitute for tea or coffee, and by some persons it is preferred as more palatable, without any regard to its healthful effects.

The following is generally a remedy for headache: Open the hair on the patient's head, apply a little fine salt; then apply the palm of the hand, and rub it hard and briskly for a short time; then perform the same operation on another part, passing over the head, particularly that part which is the seat of pain. The checks will soon be flushed with heat, and the head relieved. Whether the effect is wholly owing to the friction, that invites the blood outwardly, and relieves the brain from pressure, or whether the salt has a cooling and contractive effect in driving the blood from the brain, we know not. Perhaps it has a favorable effect in both ways. If there be no efficacy in the chemical nature of the salt, sand or sawdust would answer the same purpose of producing irritation by friction.

Champooing the head, as performed by barbers to cleanse the hair and the head of dandruff, will generally cure the headache. They apply some cleansing liquid, — perhaps soap and water would answer, — and then rub hard and thoroughly, and continue the process twenty or thirty minutes; after which the head is dried by rubbing with a towel.

Showring with cold water is a good remedy. In severe cases, let a person ascend to the second or third story of the house, and pour cold water from a pitcher or coffee-pot steadily upon one point of the patient's head.

A teaspoonful of finely powdered charcoal, drank in half a tumbler of water, will, in less than fifteen minutes, give relief to the sick headache, when caused by a superabundance of acid on the stomach.

DRESSING WOUNDS.—Nine times out of ten, a wound will heal quicker if done up in its own blood, than in any other way. As for a burn, whatever will entirely exclude the air the quickest, is the best. Cotton will do this; so will oiled silk, if stuck down at the edges by any kind of sticking salves. Put nothing on a burn to heal it. Nature will soon do that, when the air is excluded, and the pain will almost immediately cease.

Mechanics' Department, Arts, &c.

WETTING BRICKS.—Few people, except builders, are aware of the advantages of wetting bricks before laying them. A wall twelve inches thick, built up of good mortar, with brick well soaked, is stronger, in every respect, than one sixteen inches thick built dry. The reason of this is, that if the bricks are saturated with water, they will not abstract from the mortar the moisture which is necessary to its crystallization, and, on the contrary, they will unite chemically with the mortar, and become as solid as a rock. On the other hand, if the bricks are put up dry, they immediately take all the moisture from the mortar, leave it too dry to harden; and the consequence is, that when a building of this description is taken down, or tumbles down of its own accord, the mortar falls from it like so much sand. — *New York Sun.*

THE VALUE OF THE BAROMETER.—Torricelli invented, and Pascal perfected, this instrument: and it is of great use, not only in foretelling the changes of the weather, and thus saving the lives of navigators, and preventing the loss of millions of property on the ocean, but also in enabling us readily to ascertain the height of mountains, or any other situation to which it can be taken.

In illustration of the use first mentioned, I am going to tell you an anecdote which I have read of Lord Collingwood, who succeeded Lord Nelson in the command of the British fleet, after Nelson's death, at the battle of Trafalgar, in 1803. Dr. Gray, a surgeon in Lord Collingwood's ship, was very fond of observing the weather, and kept a regular register of it. But his lordship had little or no faith in the barometer, and used to laugh at the doctor for his credulity. The fleet, at one time, was cruising off Sicily, Syracuse, a little before sunset; the weather was very fine, and the sky gave no indications of a change. Dr. Gray, on going to consult his glass, and enter his observations, as usual, was surprised to find that the mercury had fallen nearly an inch. This alarmed him, and he mentioned the fact to Lord Collingwood, who was greatly amused by his anxiety. The doctor, however, urged that the fall was unusually great, and he had no doubt before midnight they would have to encounter a gale, which, though it might not be of long duration, would be extremely heavy. He added, if in this case the glass deceived him, he would admit that it was a false prophet. "Well," said his lordship, smiling, "we will put you on your trial, and you shall have the management of the fleet for once." A signal was accordingly made to prepare for bad weather. One of the captains told Dr. Gray, next day, they were quite at a loss what to make of such an order, as the afternoon was so fine, and the sky so settled. However, before midnight, they all acknowledged the wise foresight of the order, for it blew a hurricane for several hours, which must, had they not been prepared for it, have done them great damage.

Another occasion offered, some time after, to scatter his lordship's doubt. They had gone ashore, and in the morning it blew a heavy gale, which alarmed them greatly for the safety of a little vessel, in which was the son of one of their agents. For some reason, it had been taken in tow by one of the ships, and was in danger of being drawn under the water. The poor father stood, therefore, on the shore, almost distracted. Dr. Gray, however, finding that the mercury in his barometer had risen considerably and very quickly, comforted him, by telling him that he had very little doubt, but that, high as the sea was then, in an hour or two he might go

on board his son's vessel in a boat; and he actually did so.

Thus we see that this instrument, as a prophet of the weather, is of great consequence to the sailor, and carries the records of life and death in its prognostics. Life may be secured to him by the knowledge which it gives; for even an hour's warning of the approach of a storm, gives him time to lower his sails, and render as secure as possible the few frail planks which alone separate him from eternity.

This is certainly the highest use of the barometer, but its other uses are by no means unimportant. The mercury falls when it is carried from any lower to any higher spot, and the degree of falling tells exactly how much air has been left below. Thus, if thirty inches high on the barometer mark the whole pressure at the surface of the ocean, and if the instrument be found, when carried to another place, to stand at only twenty inches, it proves that one third of the atmosphere exists below the level of the new situation.

In carrying a barometer from the level of the Thames to the top of St. Paul's Cathedral, in London, the mercury falls about half an inch, marking an ascent of about five hundred and six feet. On Mont Blanc it falls to half the entire barometric height, marking an elevation of fifteen thousand; and in De Lue's famous balloon ascent, it fell to below twelve inches, indicating an elevation of twenty-one thousand feet — the greatest to which man has ever ascended from the surface of his earthly habitation. — *The Lotus.*

ROBBERIES AMONG BEES.

Bees being robbed are like being destroyed by worms — a kind of secondary matter. Nine cases in ten, the colony is too small to keep sufficient guard. Spring is the only time a man ought to complain of his hives being robbed. An apiarian that allows his hives to be robbed in the fall, is not fit to have charge of them. Business, indolence, or ignorance, is the cause. As soon as the flowers fail, if each hive were examined, and all removed except such as contained plenty of inhabitants, they would defend themselves against all intruders; but weak colonies are often left at the mercy of strong ones, that have no conscientious scruples about taking the last morsel; like some men — the habit of plundering once established, they sometimes attack those that are stronger than themselves, become weakened in consequence, and fall a prey, in turn, to others. Care is necessary at any time through the summer, when honey is scarce; but spring is the most important time. It is then we wish them to form steady, industrious habits. Prevention is better than cure, and evil propensities should be checked in the beginning. At this season, we often have some weak colonies — it is our duty to know which these are; by turning the hive bottom upwards, on a cool morning, we can easily see the number of bees. If we find any much reduced, they must be looked to often, especially the first warm days, and assisted, if necessary. Perhaps there is nothing about the apiarian more difficult to determine, than when bees are robbing — nothing is more likely than to be deceived. It is generally supposed, when a number of bees are outside fighting, that they are also robbing, and are often injured by measures taken to prevent it. A show of resistance indicates a strong colony, while weak ones make none, (at least, outside.) To detect the robbers immediately, the closest observation is necessary. Each of these, when leaving the hive, instead of flying in a direct line to its home, will turn its head towards the hive, apparently to mark the spot, and know where to return for another

load. Bees, when they first come out in the spring, seem to mark their own hive in the same way; swarms, when first hived, do the same; also, the young bees, the first time they leave home. These may be seen about the middle, or a little after, of each fair day, for about an hour, thicker than at any other time. An unusual number of bees hovering around a hive generally indicates foul play, especially if weak; but it is not conclusive. The young bees may be mistaken for robbers. This is the chief difficulty. Their motions are alike; a little difference in size and color — the young bees a shade lighter. The abdomen of the robbers, when filled with honey, is a little larger. If the apiarian has observed close enough to detect this difference, he can without trouble decide; if not, he can kill some suspicious looking ones, coming out — if filled with honey, they are robbers; or sprinkle some flour on them, and have some one to watch by other hives; or, what is less trouble, but will take longer before they are checked, if they should be robbing, visit them again, after the young bees have had time to get back — if the bustle continues, or has increased, it is time to interfere. Close up the hive, leaving passage for only one bee to pass at a time, (it should be done as soon as we find they are weak;) this will allow all that belong to the hive to get in, and others to get out, and materially retard the robbers. Unless it should be cool, they will work until dark, which they would do whether checked or not. This, by the way, should be another means of deciding the point: visit the hives every warm evening — if any are at work when honest laborers should be home, they need attention. As for remedies, I have tried several. The best, and least trouble, is to remove the weak hive to the cellar, or some cool, dark place, for a few days. They will then, probably, attack the next nearest one; the entrance of this should be closed, allowing just room for the bees at work to pass. If strong, no danger need be apprehended; they may fight and kill some — perhaps a little chastisement is necessary, to remind them of their duty. After three or four warm days, they generally give it up, when the removed hive can be returned to the same stand, and room allowed for only one bee to pass out at a time. Changing the stand, after the bees have marked the location, will often ruin them, unless to a distance of over a mile. If convenient to move them that distance, there would be no danger from a second attack, and would lose no time in the house.

Yours,

M. QUINBY.

CONSACKIE, GREENE CO., N. Y.

— *Philadelphia Dollar Newspaper.*

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

In the northern part of New England, where the warm weather comes on suddenly, and bees can procure food soon after it is warm enough to go abroad, robbing is not common in spring. But in the fall, and in a dry time, the latter part of summer, robberies are common in all parts of the country. We have known cases in midsummer, when it was extremely dry, of late swarms being entirely destitute of honey, and of early or old swarms, which had a good stock of honey, consuming it as fast as in the wintry season. Of course robberies will take place at that time under such circumstances.

It is true that strong swarms are seldom robbed; yet this evil is liable to befall powerful swarms. We have known cases in which strong swarms, so far as numbers were concerned, have been robbed, and all

the honey, amounting to sixty or seventy pounds, has been carried off in a few days. Some bees, like some nations, do not effectually resist invaders, though they are numerous and strong.

CHEAP WINTER PROTECTION-BED FOR HARDY PLANTS.

We were induced, last fall, to try an experiment suggested by a friend for raising cabbage, cauliflower, broccoli, and lettuce plants in the latter end of the season, and protecting them during the winter for early spring planting, without the use of sashes or shutters.

They are thus constructed: on a southern exposure, with a slight declivity, ridges are raised fifteen inches high and eight feet apart across the declivity. The seeds are sown in the beds between these ridges, and when well up, are either trimmed or picked out to the proper distance apart, (we have tried both,) and lima bean poles are then laid across the beds on the ridges at about six inches or less apart, being, of course, lengthwise with the declivity. These poles are then covered with pea brush, and finally with a coating of salt hay or straw. This arrangement prevents the frequent freezings and thawings of our changeable climate; and thus far (March 6th) the plants are in good order and ready to be planted out as soon as the weather is settled.

Part of these plants were put out in places last fall, in time to establish themselves, take root before severe frost, each being covered with a wooden box, which cost three and a half cents, and will last many years, and protected as described at the close of our article "Kitchen Garden," under the head "Work to be done from March 15th to April 15th."

These boxes will come off in time to be used for cucumbers, melons, &c., and each of them will answer all the purposes of a hand-glass if desired, by laying a pane of glass on top: covered with millinet, they effectually keep off flyers. — *Professor Mapes.*

FATTENING BEEF AND PORK.

Whenever I see a farmer peddling half-fatted pork, I ask the age of the hogs. Strange as it may seem, such animals have generally starved through two or three winters; and it requires no exercise of faith to believe the farmer's story, that it took fifty bushels of ears to get them started, or on the lift. The science of making the most pork with the least feeding, is to keep the hog growing from the start given him by his mother's milk. 'Twas but the other day that I saw a farmer who disports himself of one hundred and fifty all arable alluvial acres, hawking about a few quarters of lean cow beef: am I in the wrong for saying that I instinctively felt as though all the fat of that animal had been lost, without one cent of corresponding gain to the farmer. I once knew a farmer who suffered his sheep to eat out of one side of a stack of hay, when it fell over and crushed several sheep to death. This farmer averred, with a smile, that the surviving sheep were enough better for their extra feed to compensate him for their loss! But the man who essays to fat a half-starved animal from fall to Christmas, has not even the excuse of the sheep story. — *Genesee Farmer.*

STIFF DISORDER IN HORSES.

MESSRS. EDITORS: As I have had, in the last two years, some experience in the treatment of the disease among horses, commonly known by the name of *stiff disorder*, I send you my mode of treatment.

It will not be necessary for me to go into a minute description of symptoms, as they are very correctly described (in the main) by J. J. Rousseau, p. 126, vol. vii., of the *Prairie Farmer*. The first symptom that the horse shows, that is discernible to the common observer, is a stiffness in the hind parts, with the extension of the main muscle that runs up in the groin; and if the disease is attended to before it gets any further advanced — a strong decoction of butter-nut bark (or perhaps it will be better known by the name of *white walnut*) given one quart at a time, once in twenty-four hours, for three times, with a tablespoonful of sulphur given eight or ten hours after each dose of the bark juice, will be sufficient to put the horse in a healthy condition. But when the disease is further advanced, the horse must be bled from one quart to three pints once in twenty-four hours, two or three times, (the number of times depends on the severity of the case,) and the decoction once every twelve hours for four days, and not give the sulphur till done bleeding, and then give once a day, together with a teaspoonful of saltpetre.

This mode of treatment, I have tried in several cases, and it has proved effectual in every instance. During the treatment, the horse must be kept on wheat bran, with a small sprinkling of oats. Then turn him out, and let him go five or six weeks, and he will be as good as ever.

E. P. W.

ELMORE, PEORIA CO., Jan. 1849.
— *Prairie Farmer.*

TO PREVENT THE RAVAGES OF THE CUT-WORM.

Most gardeners have experienced a great deal of vexation from the destruction of their plants by the cut-worm. The cabbage plant appears to be in special favor with these destructives. They are much more abundant in southern gardens, I think, than at the north, and in many gardens the plot devoted to cabbages has to be often almost entirely replanted. There is a simple and efficient preventive, which requires only to be known to be universally practised when necessary.

On the site of your intended row of plants dig a narrow trench, three or four inches deep, and in the bottom of this trench set your plants as usual, and the cut-worm will not go into the trench to injure the plants. The experiment was fully tested by the writer the past summer, and proved perfectly satisfactory. When the plants have become a little stout, and able to resist the enemy, the earth must be gradually gathered about them, until the whole plot once more becomes a level. The plants will head by this mode of culture quite as well as by any other. I have left about half of the plat at times, to be set in the old method, and from one third to one half of the plants have been destroyed, while not one in the trenches has been injured in the least. I had but little faith in the plan when first pointed out to me; but repeated experiments have satisfied me that it is an efficient one. I don't pretend to give the reason of the thing, though I am convinced of its efficacy.

ATHENS, GEORGIA.
— *Albany Cultivator.*

WILLIAM N. WHITE.

TO DESTROY THE STRIPED BUG, ETC.

MESSRS. EDITORS: To destroy striped bugs and other insects, a brood of fifteen or twenty chickens, in a small garden, will keep it free from the above named ravagers. The brood should be hatched about a week before the vines and plants come up. The hen should be secured in a coop near the centre

of the garden, with spaces for the chickens to go in and out; it would do you good to be up as soon as light, and see the little busy bodies drawing the worms from the cabbage roots, or the bugs from their hiding-places among the vines. I have used the above remedy for several years with complete success.

I am wintering 160 or more fowls, and intend to raise 12 or 1500 chickens, and I reckon bugs and worms won't trouble my garden much. I find fowls the most profitable stock kept on a farm: my hens have laid between 19 and 20 hundred eggs (and that too without any fresh meat to feed on) since the first of December up to this date. A gentleman from Fort Edward, that was wintering 5 to 600 fowls, called, in my absence, to buy eggs for his own family use: was it not laughable? I have kept an account with my fowls, and find myself in debt to them. The more I feed, and the more pains I take to pay them, the more I get in debt; and finally, after three or four years, I find myself so involved, that I kill off my creditors, and send them to the city to be dissected.

S. O. CHAFIS.

KINGSBURY, March 3, 1849.
— *Pennsylvania Cultivator.*

ANALYSIS OF CABBAGES.

The different varieties analyzed by Mr. Salisbury, were the drumhead, savoy, red cabbage, cauliflower, and turnip cabbage; they all contain much water. For instance, 100 lbs. of drumhead will give 83.6 lbs. of water, and the remaining 11.4 lbs. dry matter.

The savoy contains 86 lbs. in the 100, and the cauliflower still less.

Estimated dry, the drumhead will give nearly 7 lbs. in the 100 of ashes, and the cauliflower 10 lbs. and nearly a half in 100.

Supposing an acre of land, planted to this crop, should yield thirty-six tons, as has been done; it would carry away from the soil the following amount of the following minerals:—

	lbs.
Silic acid,	2-958
Sulphuric acid,	56-134
Phosphoric acid,	63-784
Phosphate of peroxide of iron,	5-916
Iron,	14-484
Magnesia,	17-986
Potash,	142-418
Soda,	161-772
Chlorine,	3-973
	468-450

EXPERIMENTS WITH POTATOES.

For several seasons in succession, a few years ago, we tried various experiments on our farm, in the cultivation of potatoes: one of which was for the purpose of ascertaining which was best and most economical, — to plant cut tubers, small potatoes, or those of large or medium size. It would take a longer article than we now have time to write, to give all the particulars of these experiments; but the result was, either cut potatoes or small ones produced as great a yield, and as large tubers, as medium-sized or large seed, except when the season was rather a wet and very growing one; and then, the latter produced the largest crop. The only additional value which we found in large-sized tubers over small ones was, that the decomposition of the former produced food for the growing crop. But if the season proved rather dry than otherwise, the seed would not rot; consequently it afforded no advantage to the growing crop over small seed. Judging from these ex-

periments, all that is necessary to grow a good crop of potatoes, is, an eye, with sufficiency of the tuber attached to cause it to sprout; a good soil, or one well manured, and a growing season.

These remarks are made with reference to the absence of the rot. While this is prevalent, we think it safest to rely exclusively on planting the whole tuber, which should of course be sound, and of medium size. At the time of planting, put about a pint of oyster-shell lime directly on the seed, and then cover. All who have adopted this method, so far as we have heard, have not only been exempt from the rot, but have grown good crops of a superior quality. — *American Agriculturist.*

For the New England Farmer.

KINDNESS TO ANIMALS.

The noble horse, who toils for thee,
And does thy bidding willingly,
Endowed by God with instinct rare,
Should in thy love and kindness share.

The patient ox, who meekly bows
Beneath the yoke, and daily ploughs
The rugged field, should surely be
Repaid with tenderness by thee.

O, spare the lash! remember, they
Have not *thy* gift — bright reason's ray;
Be gentle to the helpless brute —
Kindness is heaven's own attribute.

LEBANON, Ct.

E. C. L.

THE OLIO.

Agriculture, like the leader of Israel, strikes the rock — the waters flow, and the famished people are satisfied.

Afflictions are the same to the soul as the plough to the fallow ground, the pruning-knife to the vine, and the furnace to the gold.

Many who find the day too long, think life too short; but short as life is, some find it long enough to outlive their characters, their constitutions, and their estates.

"I wonder what makes my eyes so weak," said a loafer to a gentleman. "Why, they are in a weak place," said the latter.

Knowledge is power, as the dandy said when he stopped the dogs from fighting (which none others could separate) by applying snuff to their noses.

Let your fireside be a Paradise.

Laziness begins in cobwebs, and ends in iron chains.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18¢ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, MAY 26, 1849.

NO. 12.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

BUCKWHEAT.

In many cases this is a valuable grain. It can often be raised on light land, too poor for other crops; and it admits of later sowing than most other kinds of grain. It does not succeed well when sowed early. A good time for sowing, in this section, is from the tenth to the twenty-fifth of June. We should prefer from the fifteenth to the twenty-fifth.

Some crops have ripened well in this latitude when sowed as late as the fourth of July. In the Middle States, buckwheat is sowed late, so that it will have barely time to ripen before frost. The object of this is to prevent injury from the hot sun in August, when the plant will be in flower, if sowed rather early. Perhaps the hot sun in this region has injured the crop when blossoming during the heat of summer, and yet the cultivator may not have been aware of the cause of failure. We advise experiments on this subject by sowing a little rather early, for trial.

Buckwheat is generally a cleansing crop, as it destroys most kinds of weeds. The weeds start with the wheat, but the wheat is so rapid and rank in its growth, that it destroys the most of them.

Buckwheat flour is valuable; and the meal is excellent for swine. The grain is fine for poultry, and for feeding pigeons it is regarded as the best grain. Some farmers sell their whole crop at a dollar a bushel to those who insnare pigeons in nets.

Judge Hayes, of South Berwick, distinguished for his attention to agriculture, informed us that he ploughed about two acres of pasture land, and obtained a very good crop without manure, and with but little labor. The straw made good fodder, and the pasture land was improved by cultivation.

CATERPILLARS.

These insects are among the most destructive of any that infest an orchard; yet, as they may be easily destroyed, the farmer is without excuse if he allows his fruit and trees to be destroyed by them.

There are numerous ways of destroying them. Among the most simple and effectual, after they

have hatched, is that of crushing them with the hand as soon as they begin to form their nests; or, if too high to be reached, they may be taken off with a pole.

Strong whale oil soap, — one pint of soap to four and a half gallons of water, — applied with a syringe, or a mop of rags at the end of a pole, will destroy them, and, if used towards sunset, or early in the morning, or on a dull day, it will not injure the foliage; and at such times the caterpillars are at home, excepting the dull weather is of long continuance, so that necessity compels them to go abroad for food, after fasting a while.

There are various other modes of destruction, and every one who pays proper attention to the subject will find some way to rid his trees of this nuisance. The satisfaction of seeing his trees in a flourishing condition will amply repay all the expense, to say nothing of the superior value of the trees and fruit.

NOTICES OF PUBLICATIONS.

REPORT OF THE BOARD OF AGRICULTURE OF THE STATE OF OHIO. — We are indebted to friend Bateham, of the Ohio Cultivator, for this third annual report. It is a document of two hundred and twenty-two octavo pages, containing the doings of the Ohio State Board of Agriculture, and of the County Agricultural Societies, reports of the state of agriculture and principal productions of each county, lists of best fruits from several fruit-growers, and various statistical and chemical tables, embracing much valuable information. The board give a very cheering account of the deep interest generally felt in the cause of agriculture and the progress of improvement. They say, —

An increasing taste for agricultural reading is making itself manifest, and the desire to profit by the experience of others, and the improvements of the age, is beginning to occupy, in the minds of men, the place so long held by the traditions and practices of their fathers. We think the spell which bound our people to old habits, and to the usages of other times, is partially broken, and that they are beginning to wake up to the realization of the fact that they live in an age of improvement and progress, of

mighty progress in every branch of human industry, and that if they would keep pace with the age, they must bring to bear, individually and as masses, all their energy, with constantly increased intelligence and skill.

Hovey's Magazine of Horticulture contains a variety of interesting original matter, both by the editor and correspondents.

Excelsior.—This popular journal, devoted to temperance, literature, and general intelligence, has recently appeared in a new dress, commending itself to the public for its beautiful typographical appearance, for its powerful aid in the cause of temperance, and for its interesting miscellany. C. W. Slack, Editor. Weekly, at two dollars per year.

Horn's Railroad Gazette.—This is a novel work, very interesting to the traveller or man of business. It contains maps or diagrams of all the railroad routes in the United States, tables of distances, fares, departures and arrivals of cars, with various other useful matter. S. Horn, Editor. New York city. Weekly, at two dollars per year.

ACKNOWLEDGMENTS.

Of Mr. James Munroe, Cambridge, Strawberry Sweet Apple, the same as we recently received of Mr. J. Owen, without name. It is an excellent keeper, pleasant, but not large enough, nor of sufficient character for the market.

Of Captain Silas Allen, Shrewsbury, specimen of Iron Pear, in excellent condition.

Of Mr. Henry Vandyne, Cambridgeport, pears of moderate size, in an excellent state of preservation, rather poor for the dessert, but first rate for cooking.

Of Mr. M'Intosh, stall 105 in the market, an apple for a name, which proves to be the Shawmut, described in the American Fruit Book. A very good apple, keeping finely, but rather small for the market.

From Brooks's stall in the market, Spring Pippin Apple. Medial size; sugar-loaf form; red, fair fruit. Too hard to try; a warm summer may soften them. These are from the state of New York. A great keeper.

ENGLISH PREPARED BONE MANURE.—This manure is advertised on our cover. It is a new preparation very convenient from its portable form. We advise those who are disposed to make experiments, to try this manure, and report to us the result of their experience. A small lot has been sent out for trial in this country, and we hope that it will be fairly tested.

CULTIVATION OF PEACHES.

Eds. Cultivator: It is a general fact that the peach will degenerate in quality on being produced from seed.

I had, from my agricultural or horticultural reading, derived the opinion that the peach would diminish in quality if a continued reproduction from seed were practised. I ever doubted the correctness of that opinion, as indicating imperfection in the arrangement of nature; and of late, I have been led to doubt it still more. Passing through, near the central part of this county, (St. Joseph, Mich.) I called at the residence of Mr. H. K. Farran, whom

I afterwards found to be a very intelligent farmer and fruit-grower; and whose fine looking peaches, I thought, offered quite an inducement to the cultivation of taste. Upon trial, I found them to be delicious. I remarked, that I supposed he had obtained his fruit by budding. He said, no, he raised them from pits brought into the county with him; and that they had been reproduced three times, and had improved at each successive reproduction. I alluded to the opinion of eastern cultivators of the peach. "I know," said he, "they believe it degenerates, and perhaps it does on most eastern soils; but here," continued he, "is the home of the peach." He remarked, further, that "he had raised fruit every year since his trees began bearing, and that a friend of his near by had raised large quantities every year for fifteen successive years."

A lady of my acquaintance here, informed me that she planted the pits of some very inferior peaches; and this year, the trees were burdened with the most delicious peaches she ever tasted. I could adduce numerous additional cases, on good authority, where the same results have followed the planting of the seed, or pits.

CHARLES BETTS.

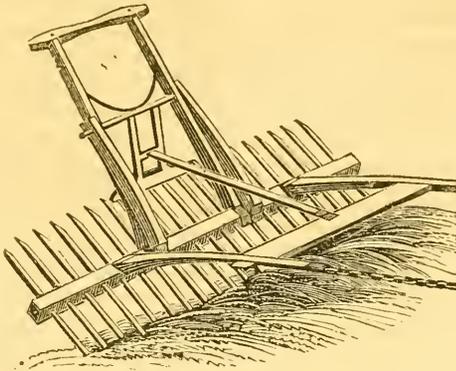
BURR OAK FARM, MICH., 1849.

We suppose a similar law prevails in the production of peaches from seed, as in the production of other fruits by the same mode. That the degeneracy of a species should follow from this mode of propagation, would be contrary to nature. But if we plant seeds of our finest varieties of fruits, it is not to be expected that all the varieties so produced would be equal to the parent. Experience proves that, in raising from seed, the proportion of those kinds which are really first rate, is very small. — *Eds. — Albany Cultivator.*

Seeds from seedling or natural peaches generally produce the same, and there is usually no degeneracy in eastern soils, provided the culture is good. Seeds from very fine budded peaches often vary from the parent tree, and they are generally poorer, from the influence of the stock, as the production of the stock would usually be inferior to the kind budded on it. — *Editor New England Farmer.*

THE FIRST SAW-MILL.

The old practice, in making boards, was to split up the logs with wedges; and inconvenient as the practice was, it was no easy matter to persuade the world that the thing could be done in any better way. Saw-mills were first used in Europe in the fifteenth century; but so lately as 1555, an English ambassador, having seen a saw-mill in France, thought it a novelty which deserved a particular description. It is amusing to see how the aversion to labor-saving machinery has always agitated England. The first saw-mill was established by a Dutchman in 1663; but the public outcry against the new-fangled machine was so violent, that the proprietor was forced to decamp with more expedition than ever did a Dutchman before. The evil was thus kept out of England for several years, or rather generations; but in 1768, an unlucky timber merchant, hoping that after so long a time the public would be less watchful of its own interests, made a rash attempt to construct another mill. The guardians of the public welfare, however, were on the alert, and a conscientious mob at once collected and pulled the mill to pieces. Such patriotic spirit could not always last; and now, though we have nowhere seen the fact distinctly stated, there is reason to believe that saw-mills are used in England.



REVOLVING HORSE HAY RAKE.

This implement is among the most valuable for saving labor; and it not only saves labor, but it saves property also. On smooth land, a man with a horse will rake as much hay in an hour or two with this rake as he could in a whole day with a common hand rake; and the great advantage is in his being able to perform so much in the short space allowed for this work.

A few acres of hay may not be dry enough to rake till afternoon, and in the course of a few hours there may be rain, so that without this labor-saving apparatus it would be impossible to gather the hay in the limited time, and a little neglect may cause great loss, by a storm coming on the hay just as it is well made, and continuing till it is nearly worthless.

There is not only a great advantage in the use of this rake, by saving hay from storms and showers, but the farmer is enabled to do his haying in better season, and save it from loss by standing too late. On most farms, nearly all the grass needs cutting about the same time, so it is necessary for the farmer to cut a part too early, and let a part remain too late, and frequently there is great loss in its standing too late; besides, the harvesting of grain, and other business, may require attention.

One farmer, who mowed twenty or thirty acres, remarked, that he would rather buy a horse rake every year than do without it.

RESPECTABILITY OF THE FARMER'S PROFESSION.

Agriculture is the principal source of the wealth and happiness of nations. It is the basis of manufactures and commerce, and of every valuable interest of civilized life. It is the most primitive occupation of the human family, and should be one of the most honorable among men.

It is too true, however, my brother farmers, that our occupation is looked upon by many as degrading in its character, and as one of the lowest in the scale of human pursuits. Many suppose the farmer to be a mere hewer of wood and drawer of water for the rest of society, possessed of little or no intellectual cultivation or moral elevation of character. Too many suppose that the professions are much more

respectable in their character, or that the wealthy merchant belongs to a higher grade in the scale of society. These ideas float in the brain of the farmer himself at times, and account for the efforts he frequently makes to free himself or his posterity from the fancied odium of his calling, by placing his son behind the counter, or educating him for some one of the learned professions.

But, my friends, what is there in our occupation that is degrading? Is it a menial service to raise pork? Then must it be so for the merchant to pack it for market. Is it degrading to turn over the fresh furrow by dawn or at midday, with a fine team and a vigorous hand to guide them? If so, what must be the character of the lawyer, who, for money, hires himself as the agent of the worst of human passions? Or what name shall we give to the routine of the physician, who day and night attends upon disease in his loathsome forms, or hammers in a mortar the nauseous drugs of the *materia medica*?

No, my friends. It is not the calling which makes the man; it is the man who gives character to the calling; and the reason why the professional man stands higher in the social scale is, that by the fortunate circumstances of his life, his opportunities for knowledge have been greater, and his understanding is more improved. It is an eternal and immutable law of our nature, that superiority should claim our deference. Superior intelligence commands our respect. The boy pays homage to the man, the ignorant to the educated, and the weak to the strong minded. Knowledge always has been, is now, and always will be, power; and the only way in which we can place ourselves on an equality in the social scale with the highest grades in society, is, by elevating, as a class, our intellectual and moral condition.

— *Selected.*

THE POTATO.

It is a fact perhaps not generally known to farmers, that there are two parts in the potato, which if separated and planted at the same time, one will produce tubers fit for the table eight or ten days sooner than the other. The small end of the potato, which is generally full of eyes, is that part which produces the earliest; the middle or body of the potato produces late, and always larger ones. A farmer in the Amherst Cabinet says he always pursues this plan in order to obtain an early supply for the table, which are usually fine and mealy. — *Claremont Eagle.*

For the New England Farmer.

WINTER RYE WITHOUT MANURE.

MR. EDITOR: In the *Cultivator* of August 7, 1842, I made some remarks on raising winter rye, and have not seen fit to change my opinion from that time. Rye bread, if not so palatable as wheat, is quite as conducive to the health of a New England constitution as bread made of wheat. The soil being better adapted to it here, the bread made from it may be better fitted to the health of the inhabitants where it flourishes best: how that may be, I leave each one to be his own judge. As the state of the markets are now, no farmer will expect to make his fortune by raising and selling rye; but every one who has suitable land for the crop can supply himself with a better article, and at less expense from his own soil, than he can by transporting it from the Western States. Not but that the rye is naturally excellent produced at the west; but a large proportion of it is damaged before it reaches us, by carelessness or bad management in harvesting and curing of it, or injured by those little villanous hordes of quadrupeds that infest their granaries: having no regard for any law enacted by General Court, they defile it with their filthy excrements, which renders the flavor bad, beside disgusting us with their filth. Grain brought from a great distance is very liable to imbibe dampness and become musty, especially if transported by water, and is unfit for bread.

Formerly farmers raised and used more rye in their families than at present. I think, if I may judge from appearances, that the change from rye to wheat has not added "one cubit to the stature," not one degree of strength or health to the present generation. From the close of the revolutionary war to the nineteenth century, many of the farmers, inhabiting the rye districts in this county, did not use fourteen pounds of wheat flour in their families in a year: at election, some of the more able ones would purchase seven pounds to make election cake and pie crust for the upper surface, while the under crust, not in so conspicuous a situation, was made of rye. When one ventured to purchase fourteen pounds for thanksgiving, he was considered by his more economical neighbors as committing an extravagance which they could not indulge in. Now, it is a common practice for a farmer to tumble into his store room from four to ten or twelve barrels a year for the use of his family.

My remarks, in this communication, will relate particularly to raising rye on old, worn-out plains and pasture lands, where it would be unreasonable to expect a yield which would compare with the crops produced on highly manured and cultivated fields. As a statement of facts produces the most weighty arguments in favor of any pursuit, I will relate my method of raising a crop of rye in 1848.

In June, 1847, we ploughed about two and a half acres of old pasture ground, which was completely exhausted by having four crops of rye and corn taken off in succession: the last one would hardly pay the labor of harvesting. A part of the land was a light, sandy soil, a part was compact and gravelly, and a part was a dark, sandy loam, and all pretty well elevated: this land had lain fifteen years as pasture, and had produced but little feed. The twenty-third day of August, the land was harrowed with an iron harrow till it was completely pulverized; then nearly one and a half bushel of rye was sown upon the whole lot, and then harrowed again with the same harrow, and at last swept over with a bush harrow, to finish the process. The weather being very dry, the rye did not come up till the first of September; then it grew rapidly till winter commenced. In July, 1848, the straw was from five to six feet high. When the rye was ripe, it was reaped and bound in bundles, and set heads upward in my

barn until perfectly dry, (instead of stowing it in a mow, "as the manner of some is,") which is, to the lover of sweet bread, a most important part of the work. When rye is stowed in a mow, if it is apparently dry, it is apt to attract a dampness, if it is not retained in the straw, and, after continuing in the mow a few weeks becomes musty, and causes a disagreeable, bitter taste in the clammy bread made of it. As soon as the rye was well cured, it was threshed out, and yielded from sixteen to twenty bushels to the acre of clean rye. On poor, unmanured land, feeding rye down by cattle or sheep, either fall or spring, is very injurious, by retarding its growth and subjecting it to blight; and I am entirely opposed to having any of the first year's growth fed off by animals. If there should be a rank growth of leaves, they serve for a winter protection, and, on decaying, benefit the soil. Most of our light soils will produce a crop of rye once in five or more years, without manure; and if redtop seed be scattered in with the rye, they will furnish cattle or sheep with better pasturage than they would to lie unploughed; and I think the land suffers little or no deterioration by being thus cropped once in seven years.

N. B. To all lovers of fruit, and all raisers of fruit for the market, I can conscientiously recommend "Cole's American Fruit Book" as a cheap and excellent work, adapted to a large section of the United States. SILAS BROWN.

WILMINGTON, MASS., May 4, 1849.

For the New England Farmer.

CULTIVATION OF INDIAN CORN.

FRIEND COLE: Thinking it may be of some little interest to a portion of your readers, I will give you a brief statement of the character of the soil, and cultivation of one acre and ten rods of corn ground, which produced a fraction over one hundred and nineteen bushels of shelled corn, weighing sixty-two and three fourths of a pound per bushel.

The land on which the corn was grown has a south-eastern slope, and is mostly of a flint and blue limestone soil—deep, rich, and dry. In 1847, two thirds of said land was sown to corn fodder, and had no manure; the remainder was well manured,—but I am unable to state the quantity,—and sown to beets and ruta bagas. In the spring of 1848, I spread thirty loads (forty to forty-five bushels to the load) of green barn-yard manure on the land, and ploughed it in, running the plough about ten inches deep. I then spread on fifteen loads of well rotted compost, equal parts of yard manure and rich swamp muck. This was thoroughly harrowed in.

The second week of May, the ground was marked out into rows at the distance of three feet and four inches, and cross-marked at the distance of twenty-seven inches, and the twelve-rowed variety of corn planted in the angles thus formed, covering the corn about two inches deep. I think it of some little importance to have the ground marked out. It can be planted in less time: there is no hesitation for the eye to measure distances, and as each hill will have its just proportion of soil, more corn can be grown on the same ground, besides having the rows so straight that the cultivator can be used with much better effect.

Another advantage of having the land thus marked out is, that the roots of corn will receive more light and heat from the sun, especially when the plants are young; and for the same reason it is best to have the widest rows run as near north and south as practicable.

The corn was hoed three times, using the cultivator previous to each hoeing, and keeping the hill as level as practicable.

At the first hoeing, only three stocks were left to the hill. Just previous to the second hoeing, I applied ten bushels of strong wood ashes, distributing them in small heaps around the stocks of corn, and leaving them, at hoeing, slightly covered with earth. This, I think, is the preferable way to apply them, especially when the weather is dry, as was the case in the above instance. I have made frequent use of ashes, on light, dry soil, for corn and wheat, and always with the best result. I am not sensible that it adds much to the growth of corn fodder, or straw; but there is a very perceptible increase in the yield of grain.

In 1838, I raised one hundred and fifteen bushels on this same piece of land, and it was then managed very nearly as the above. I am of the opinion that we had better apply our ashes to our farms than to sell them for twenty-five cents per bushel; and on certain soils, and for many crops, I believe them to be worth more. I have made several experiments, on various crops, with ashes, lime, and plaster of Paris, side by side, and the yield of grain has ever given a decided preference to the ashes. Indeed, I have never found much benefit in using plaster; yet I think it valuable manure for certain soils, and where the transportation is not too high, it would be beneficial to all farmers to use in their compost and yards, it being such an excellent thing to fix and retain the fertilizing gases.

The cost of producing this crop, including all of the labor, eight dollars for taxes and use of the land, and one half of the manure at one dollar per load, was nearly sixty dollars. The value of the crop, including the fodder, was ninety-four dollars, leaving a profit of about thirty-four dollars. I have frequently raised large and profitable crops, and think I know how to apply labor to as good advantage as farmers in general; yet I am never able to obtain so large profits as I frequently see published. I have seen accounts of raising corn in New England at a cost of one shilling to twenty-five cents per bushel. It strikes me that when such statements are given, a full allowance is not made for taxes, interest money, and manure, if these things are noticed at all. The above crop is a more profitable one than I often raise; yet I think this corn must have cost me nearly fifty cents per bushel.

Although we may derive much benefit from an acquaintance with the successful cultivation of farm products, yet I think the manner in which large and profitable crops are usually published, is calculated to disappoint many who may undertake to produce like crops, and to deceive the public in relation to the profits of farming. It should be borne in mind that such crops are generally grown under the most favorable circumstances, having a soil well adapted to the crop, a favorable season, and cultivated in a thorough and cheap way. And in judging of the profits of farming, it should be remembered that, even on well managed farms, some of the many crops grown may not pay the cost of production, and that occasionally a crop may prove an entire failure. These things are a heavy drawback upon the profits of farming. I would not have one infer but what I think judicious farming profitable; yet I think it is not as profitable as what is usually published in relation to agriculture would seem to indicate. As the expense of labor in producing a large and small crop is nearly the same, I believe farmers would find it much more profitable to cultivate less corn ground, and make that more productive; and the same might be said of nearly all of our farm products.

EBENEZER BRIDGE.

POMFRET, VT., May 5, 1849.

N. B. I think corn one of the most valuable grains for the table and stock; besides, the fodder is very

valuable, when cut in season and well cured. With me, the raising of corn has been more sure and profitable than any other grain, and I believe it to be a less exhauster of the soil, in proportion to its value, than almost any other crop. It might not be improper to state, that I was awarded the society's first premium on this acre of corn by the Windsor Co. Agricultural Society.

For the New England Farmer.

LARGE OR SMALL POTATOES FOR SEED.

Mr. Editor: I do hope that definite experiments will be made by many farmers, showing whether it is best to plant potatoes of a large, small, or medial size. Published accounts of experiments on this subject vary very much. One says that he gets a larger crop from large potatoes. Another says that small potatoes yield as much as large, and that the potatoes are as large as those from large ones.

If the rows of potatoes are three feet apart, and the hills in the rows two feet apart, and potatoes of half a pound weight, each are cut in halves, and one piece in a hill, then the amount of seed will be twenty-three or twenty-four bushels to the acre. But in using small potatoes, about one third of the quantity will be sufficient, saving fifteen or sixteen bushels, which is an important item at present prices.

Now the important question is, Will the extra produce from the large potatoes be enough more to pay for the difference in seed, the interest of the money, and the difference in the price of the extra seed in fall and spring? To cover all expense, and make it an object to plant large potatoes, the extra yield from large potatoes should be twice as much as the extra seed used.

DOWN EAST.

EDITORIAL REMARKS.

Experiments in the use of large or small potatoes for planting show very different results. In some cases, we have raised one sixth more from large potatoes; in others, there was no perceptible difference. In one case, we used a whole large potato to a hill, the hills only two feet apart, and the yield was enough larger than from moderate seeding, to more than pay for the extra seed.

As a general thing, we think that it is the most economical to plant rather small potatoes when they are very high in spring, if the produce is to be sold and consumed, for the deficiency in yield from small potatoes is not, generally, equal to the saving of seed.

But in propagating a kind intended for constant culture, a very important subject presents itself, which is the general effect on the crop, as to improvement or degeneracy. On this point we have no exact experiments, though we have some of a general character, bearing on the subject as circumstantial evidence.

We knew a farmer that always planted large potatoes, and he always had large crops. In another case, a potato was cultivated on a farm for thirty years, under high culture, and with a good selection of seeds; and they improved on that farm, while they degenerated in that region generally. We now have Chenangoes that yield more than this variety generally, and they have long been propagated from good sized, fair tubers.

We hope that extensive and numerous experiments will be made on the comparative value of large and small potatoes for planting, that this important but very doubtful question may be settled. What is the difference in the quantity of seed, and what is the difference in yield? We trust that we shall have, another season, the results of accurate experiments.

WASHING AND SHEARING SHEEP, AND PREPARING WOOL FOR MARKET.

Mr. H. S. Randall, of New York, well known for his experience in managing sheep, gives the following valuable information, in a work entitled "Sheep Husbandry at the South," recently published by Messrs Skinner and Son, Philadelphia.

As to the time of shearing sheep, we would remark that, in the northern part of New England, it is as well to delay it until the first week in June, and longer if it continues cold. Occasionally, we have cold storms in the north, the former part of June, that are very severe on shorn sheep, sometimes causing the destruction of many, and severe suffering in others.

Washing. — This is usually done at the north, about the first of June. The climate of the Southern States would admit of its being done earlier. The rule should be, to wait until the water has acquired sufficient warmth for bathing, and until cold rains and storms, and cold nights, are no longer to be expected.

Sheep are usually washed, by our best flock-masters, in vats. A small stream is dammed up, and the water taken from it in an aqueduct, (formed by nailing boards together,) and carried until sufficient fall is obtained to have it pour down a couple of feet or more into the vat. The body of water, to do the work fast and well, should be considerable, say twenty-four inches wide, and five or six deep; and the swifter the current the better. The vat should be, say three and a half feet deep, and large enough for four sheep to swim in it. A yard is built near the vat, and a platform, from the gate of the yard, extends to and encircles the vat on three sides. This keeps the washer from standing in the water, and makes it much easier to lift the sheep in and out. The yard should be large enough to hold the whole flock, if it does not exceed two hundred; and the bottom of it, as well as of a smaller yard, unless well sodded over, should be covered with coarse gravel, to avoid becoming muddy. If the same establishment is used by a number of flock-masters, gravelling will be always necessary. As soon as the flock are confined in the yard, the lambs are all immediately caught out from among them, and set over the fence into a yard. This is to prevent their being trampled down, as it often happens, by the old sheep, or straying off if let loose. A boy stands by the gate next to the vat, to open and shut it, (or the gate is drawn shut with a chain and weight,) and two men, catching the sheep, as directed under the head of tagging, commence placing them in the water for the preparatory process of "wetting." As soon as the water strikes through the wool, which occupies but an instant, the sheep is lifted out and let loose. The vat should, of course, be in an enclosed field, to prevent their escape. The whole flock should thus be passed over, and again driven round where they should stand, say an hour, before washing commences. There is a large percentage

of potash in the wool oil, which acts upon the dirt, independently of the favorable effect which would result from thus soaking it for some time with water alone. If washed soon after a good shower, previous wetting might be dispensed with; and it is not absolutely necessary, perhaps, in any case. If the water is warm enough to keep the sheep in it for the requisite period, they may be got clean by washing, without any previous wetting; though the snowy whiteness of fleece, which tells so on the purchaser, is not so often nor so perfectly attained in the latter way. Little time is saved by omitting "wetting," as it takes proportionably longer to wash, and it is not so well for the sheep to be kept such a length of time in the water at once.

When the washing commences, two and sometimes four sheep are plunged into the vat. When four are put in, two soak while two are washed. But this should not be done unless the water is very warm, and the washers are uncommonly quick and expert. On the whole, it is rather an objectionable practice, for few animals suffer as much from the effects of a chill as sheep. If they have been previously wetted, it is wholly unnecessary. When the sheep are in the water, the two washers commence kneading the wool with their hands, about the breech, belly, &c., (the dirtier parts,) and they then continue to turn the sheep, so that the descending current of water can strike into all parts of the fleece. As soon as the sheep are clean, which may be known by the water running entirely clear, each washer seizes his own by the fore parts, plunges it deep in the vat, and taking advantage of the rebound, lifts it out, setting it gently down on its breech, on the platform. He then, if the sheep is old or weak, (and it is well in all cases,) presses out some of the water from the wool, and, after submitting the sheep to a process presently to be adverted to, lets it go. There should be no mud about the vat, the earth not covered with sod being gravelled. Sheep should be kept on clean pastures, from washing to shearing, — not where they can come in contact with the ground, burnt logs, &c., — and they should not be driven over dusty roads.

The washers should be strong and careful men, and protected, as they are, from any thing but the water running over the sides of the vat, they can labor several hours without inconvenience, and without drinking whiskey until they cease to know whether a sheep is well washed or well treated, as was the bad old fashion. Two hundred sheep will employ two expert men not over half a day, and I have known this rate much exceeded.

It is a great object, not only as a matter of propriety and honesty, but even as a matter of profit, to get the wool clean, and of a snowy whiteness. It will always sell for more than enough extra, in this condition, to offset against the increased labor and the diminution in weight.

Shearing. — Shearing is always done, in this country, on the threshing-floors of our barns, sometimes on low platforms, but more commonly on the floor itself. The "bay" is divided by a temporary fence, one part being used for the yarding of the sheep, and the other for doing up the wool, &c. The enclosure should communicate, by a door, with another and larger yard outside of the barn. Both of these should be well littered down with straw, and fresh straw thrown on occasionally, to keep the sheep clean while shearing. No chaff, or other substances which will stick in the wool, should be used for this purpose. When the chow has dried off from the sheep, on the morning given for shearing, a portion of the flock, sufficient to last the shearers half a day, is driven into the outside yard, and a convenient number into the bay. An assistant catches the sheep, lifts them off from the floor, as already directed, and delivers them at the door, through the "breastwork,"

to each shearer. The shearer, before taking the sheep, picks off any loose straws sticking to its wool, and, if dung adheres to any of the feet, brushes it off with a little besom formed of twigs, hung up near the door for that purpose. The shearer then takes the sheep to his stand, and commences shearing.

The floor or tables used for shearing should be planed or worn perfectly smooth, so that they will not hold dirt or catch the wool. They all should be thoroughly cleaned, and, if necessary, washed, preparatory to shearing. It is the catcher's business to keep the floor constantly swept, dung removed, &c. Having a new stand or place swept for the shearer who has just finished his sheep, he catches him another, and then clears up the stand previously occupied. He first lifts the fleece, gathers it up so that it shall not be torn or drawn asunder, and turning his arms so as to invert it, (i. e., bring the roots of the wool downward,) deposits it on the folding-table. He then picks up the 'frips' (small loose locks) left on the floor, which are deposited in a basket or on a corner of the table. Lastly, he sweeps the spot clean, to be again occupied by the shearer. An active fellow will tend four shearers, and do up the fleeces. But he should not be hurried too much, or he cannot give sufficient time to doing up. A small boy or two are handy to pick up frips, sweep, &c.

If there are any sheep, in the pen, dirty from purging or other causes, they should first be caught out, to prevent them from dirtying the others.

It is difficult, if not impossible, to give intelligible practical instructions, which would guide an entire novice in skilfully shearing a sheep. Practice is requisite. The following directions from the American Shepherd, are correct, and are as plain, perhaps, as they can be made:—

"The shearer may place the sheep on that part of the floor assigned to him, resting on its rump, and himself in a posture with one (his right) knee on a cushion, and the back of the animal resting against his left thigh. He grasps the shears about half-way from the point to the bow, resting his thumb along the blade, which affords him better command of the points. He may then commence cutting the wool at the brisket, and proceeding downward, all upon the sides of the belly to the extremity of the ribs, the external sides of both thighs to the edges of the flanks; then back to the brisket, and thence upward, shearing the wool from the breast, front, and both sides of the neck, — but not yet the back of it, — and also the poll or fore part, and top of the head. Now the 'jacket is opened' of the sheep, and its position and that of the shearer is changed, by being turned flat upon its side, one knee of the shearer resting on the cushion, and the other gently pressing the fore quarter of the animal, to prevent any struggling. He then resumes cutting upon the flank and rump, and thence onward to the head. Thus one side is complete. The sheep is then turned on to the other side, — in doing which, great care is requisite to prevent the fleece from being torn — and the shearer acts as upon the other, which finishes. He must then take his sheep near to the door, through which it is to pass out, and neatly trim the legs, and leave not a solitary lock any where, as a harbor for ticks. It is absolutely necessary for him to remove from his stand, to trim, otherwise the useless stuff from the legs becomes intermingled with the fleece-wool. In the use of the shears, let the blades be laid as flat to the skin as possible, not lower the points too much, nor cut more than from one to two inches at a clip, frequently not so much, depending on the part and compactness of the wool."

In addition to the above, I would remark, that the wool should be cut off as close as conveniently prac-

ticable, and even. It may be cut too close, so that the sheep can scarcely avoid "sun-scald," but this is very unusual. If the wool is left ridgy and uneven, it betrays that want of workmanship which is so distasteful to every good farmer.* Great care should be taken, not to cut the wool twice in two, as inexperienced shearers are apt to do. It is a great damage to the wool. It is done by cutting too far from the point of the shears, and suffering the points to get too elevated. Every time the shears are pushed forward, the wool before cut off by the points, say a quarter or three eighths of an inch from the hide, is again severed. To keep the fleece entire, — so important to its good appearance when done up, (and therefore to its salableness,) — it is very essential that the sheep be held easily for itself, so that it will not struggle violently. To hold it still by main strength, no man can do, and shear it well. The posture of the shearer should be such, that the sheep is actually confined to its position, so that it is unable to start up suddenly and tear its fleece; but it should not be confined there by severe pressure or force, or it will be constantly kicking and struggling. Heavy-handed, careless men, therefore, always complain of getting the most troublesome sheep. The neck, for example, may be confined to the floor, by placing it between the toe and knee of the leg, on which the shearer kneels; but the lazy or brutal shearer who lets his leg rest directly on the neck, soon provokes that struggle which the animal is obliged to make to free itself from severe pain, and even, perhaps, to draw its breath.

Good shearers will shear, on the average, twenty-five Merinos per day; and a new beginner should not attempt to exceed from one third to one half that number. It is the last process in the world which should be hurried, as the shearer will soon leave more than enough wool on his sheep to pay for his day's wages.

It has been mentioned, that but enough sheep should be yarded at once for half a day's shearing. The reason for this is, that they shear much more easily, and there is less liability of cutting the skin, when they are distended with food, than when their bellies become flabby and collapsed for the want of it. This precaution, however, is often necessarily omitted in showery weather. It is very convenient to have the outside pen, which communicates with the "bay," covered. On my farm, it is one of the regular sheep-houses. If it is showery over night, or showers come up on the day of shearing, a couple of hundred sheep may be run in and kept dry. And they can be let out to feed occasionally, during the day, on short grass. If let out in long, wet grass, their bellies will become wetted. Wool ought not to be sheared, and must not be done up, with any water in it.

Sacking Wool. — When the wool is sold, or when it must be sent away to find a market, it is put up in bales nine feet long, formed of forty-inch "burlaps." The mouth of the sack is sewed with twine, round a strong hoop, (rivetted together with iron, and kept for the purpose,) and the body of it is let down through a circular aperture in the floor of the wool-room.† The hoop rests on the edge of the aperture, and the sack swings clear of the floor beneath. A man enters the sack, and another passes the fleeces down to him. After covering the bottom with a layer, he places a fleece in the centre, and forces down others around it, and so on to the top, which is then sewed

* I hold that a man is not half a farmer who has not a dash of the æsthetic mixed up with his utilitarianism. Profit should not often be sacrificed to appearances; but where they are strictly compatible, he who disregards the latter betrays a sordid and uncultivated mind.

† It is to secure this convenience that the wool-room is best placed on the second floor.

up. Each fleece should be placed regularly with the hands, and then stamped down as compactly as possible, so that the bale, when completed, shall be hard and well filled in every part. The bulk of a given weight of wool will be greatly affected by the care with which this process is performed.

Those who do not expect buyers to come and look at their wool, sack it immediately after shearing. A temporary scaffolding is erected near the wool, as deposited by the tier, and one man tosses up fleeces to a second, who catches them, and passes them down to the man in the sack. A light frame, to suspend the sack, and, part way up it, a standing-place for the catcher, would be a convenient appendage to the establishment of a wool-grower who does not store his wool in a wool-room. With a set of stairs up to his midway standing-place, an active fellow would keep the treader supplied, without any assistance.

BENEFITS OF SALT AS MANURE.

We have recently been perusing several European articles, detailing experiments made with salt as manure, and from them we have made the following brief synopsis of its utility:—

It attracts the humid vapors and repels frost, and thus assists in keeping the land moist in dry weather, and warm in cold. It keeps every thing in the soil in a soft and soluble state, and assists to digest and prepare the food for vegetable nutrition. It destroys many kinds of vermin and weeds, and usually increases the amount of the crop one fourth to one third; strengthens the growth of every thing to which it is applied, and brings all crops earlier to the harvest. It generally adds from five to seven bushels per acre to the yield of wheat used in the most moderate quantity, and in all kinds of grain makes more ear and less straw. Mr. George Sinclair obtained at Woburn, on plots of thirty-six square feet, at the rate of seventy to ninety-five bushels of wheat per acre, by the use of salt mixed with other manures. It is found equally beneficial to pasture as well as root crops, sweetening all vegetation, and making it more wholesome for man and beast. It is a great safeguard against blast, rust, mildew, and indeed all the diseases of grain and vegetables.

Salt is inoperative applied near the sea-shore, where salt water spray is already in excess on the land; but every where else it is beneficial. It may be used at the rate of five or forty bushels per acre, though ten or twenty bushels are better. It can be sown broadcast on the land, or be incorporated in the manure or compost heap. Mr. Prideaux informs us, that mixed with lime and its compounds, it undergoes decomposition, producing soda or its combination with carbonic acid, or with humus; all more powerful digesters and feeders than the salt itself; and the muriate of lime, which has the strongest attraction for moisture of almost any thing known. Salt and lime work vegetable matters to decay quicker than salt alone. With gypsum it will supply soda and sulphuric acid cheaper than any other material, besides the muriate of lime, so valuable for its moistening quality. — *American Agriculturist*.

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

As to the quantity of salt to the acre, much depends on the crop, and sufficient experiments have not been made to settle this subject in every respect. Asparagus requires more salt than most other vegetables, as it is a marine plant. It will bear one hundred and sixty bushels to the acre, and be greatly benefited by the application; yet it may not be profitable

to apply so much. Plum-trees require more salt than other trees. Cabbages and turnips are much benefited by salt, and will bear rather a large quantity.

Corn and beans have flourished well where we have planted them on lands overflowed by salt water at the time of high tides in spring and fall; but on the same land potatoes were inferior, just as far as the salt water extended. We need further and more definite experiments to show the utility of salt in agriculture, and determine what crops are most benefited by its application.

HYDROPATHY IN VETERINARY PRACTICE.

FRIEND BATEHAM: I presume you will not consider suggestions in this branch of the medical profession as foreign to the objects of the Cultivator. It is but a few years since the virtues of cold water in the curative art were made known to the world. That aqueous applications are among the most effectual means of curing many diseases, can no longer be doubted by the intelligent.

But the hydropathic practice should not be confined to human animals; for no doubt it may be made available in the cure of various diseases that afflict domestic animals. As proof of this, I will state a case that occurred last summer under my own observation. Our kind and intelligent horse, that had secured the good will of the family as well as of all who knew his many excellent qualities, "fell into a decline," and during a period of three months grew more and more feeble, with less and less relish for his food, until he was unable to render the least service, and almost entirely abandoned his oats. His head drooped, his hair lost all its gloss, his eyes their brightness, and he would occasionally tremble, and, worse than all, was afflicted with a cough. No one knew the nature of his disease, though he was suspected to be consumptive. He was sent to a veterinary practitioner, who bled him and administered medicine without avail. He grew no better, but constantly worse, until the doctor "gave him up," telling his master to turn him out to live or die, as the case might be. Medical science having thus failed to furnish a remedy, it was suggested by a woman, who needs no trumpeter for her intelligence and virtue, that the cold water treatment might be successful. "No sooner said than done." Your humble servant volunteered to give the poor horse the wet sheet daily until he should be either better or worse. The time of treatment was at mid-day, as the mornings and evenings were too chilly. The mode of application was to take off his blanket, dash upon him cold water, smoothing him down so that it may reach every part of the skin. The patient was thus daily drenched with some ten or fifteen buckets of water, for about two weeks, when he was pronounced well, and up to this day has enjoyed uninterrupted health, and regained, not only his former vivacity, but a little extra life, which has somewhat diminished his popularity, especially with the female portion of his former admirers.

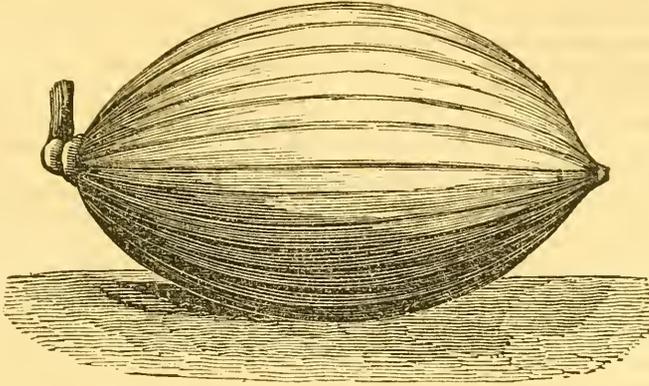
I thought the above would be of service to some; and to those who may profit by the treatment, it is entirely welcome. If you will not dub me doctor for thus stepping out of my sphere of impracticability into the *practical* of life, I shall remain

Respectfully yours,

L. A. HINE.

CINCINNATI, Feb., 1849.

—*Ohio Cultivator*.



AUTUMNAL MARROW SQUASH.

For the New England Farmer.

MR. COLE: In your paper of last week I observed an article from the Maine Farmer, in which the writer has confounded the cicada, or vegetable marrow, of England, with the above fine vegetable; in truth, the vegetable marrow is of the gourd family, and a very indifferent vegetable, being a summer squash.

If you will turn to the Horticultural Register of 1835, edited by Breck and Teschemacher, and published in Boston, you will there find the first description, accompanied with a drawing, or cut, of the autumnal marrow, (which, by the way, I think, was left with you some time since,) the true autumnal marrow, (*meloepo curcubita*,) the seed of which came here in a letter from Northampton some two or three years previous, and I have not been able to trace it beyond that place, and have conjectured that it was an accidental hybrid, which originated in that neighborhood.

PEARS. — The prospect for pears this season is not good, a great proportion of the buds, particularly upon the Bartlett, have perished. I do not think, from the present appearance of pears generally, that we shall have one quarter of a crop the coming year. I have but one tree of the Bartlett with healthy buds, and that is double worked upon the quince.

CHERRIES. — In some of our gardens the cherry-trees present a most peculiar appearance in their buds; the flowers are destitute of stamens or pistils, but having a perfect and full-formed calyx. The kinds most affected are the late varieties.

SALEM, May 14, 1840. Yours truly,
J. M. IVES.

EDITORIAL REMARKS.

To Mr. Ives, we believe, belongs the credit of introducing this valuable squash into this region. It is the most popular kind cultivated, always selling at prices considerably higher than any other variety.

Of late years, this squash often fails from its being eaten in the root, just below the surface, by small white worms, so that the vines often die after the squashes are partially grown. Generally these worms are the most destructive on old lands, but we have noticed some cases in which they have been injurious on green sward, while they have done no injury on old land near by.

Some suppose that this worm is produced in the land or manure; others think that it is from a fly which lays eggs at the root. As a preventive, we have, for two years, used fresh horse manure with about one fifth part of wood ashes, mixing the whole up in the soil; and our vines have not been injured, and the crop has been fine; while other vines, in the same lot, where old manure and no ashes were used, were all destroyed by worms. Yet this may not be an infallible preventive. Numerous experiments are necessary to settle a question of this kind, where numerous causes, and some unknown, may have an influence.

Fresh horse manure is free from these worms, and ashes may destroy them in the soil, and being mixed with the soil, with which the seeds are covered, they may be a preventive even if the worms are from the eggs of a fly.

Pears look well in many sections. We shall find that our native pears are more to be depended on in our changing season. Almost every body has been setting the Bartlett pear. Now, many complain that it is hard to grow from the ground, and when put on old trees, it soon stops growing, and endangers the life of the tree, as it will not maintain its natural vigor; and when people generally become well acquainted with excellent pears, they will learn the important truth, that the Bartlett is not the very best in quality.

Cherries, so far as we have observed, have a fine blowth, and are very promising.

TO HAVE FINE MUTTON.

The sheep, as soon as killed, should be disembowelled. It is the neglect to remove the entrails at once, and not the meat being touched by the wool, which imparts to it that strong mutton taste. The reason of this is, that the warmth of the body, carried off by the loss of blood, is for a time supplied from the warmth of the bowels, and thus the objectionable taste created.

COAL ASHES VALUABLE AS MANURE.

SIR: Can you give some of the readers of the Horticulturalist information of the virtues of anthracite coal ashes, their chemical nature, their strength, compared with wood ashes, and to what soils or plants they are particularly suitable?

I do not remember seeing any where a statement of their qualities, except a late remark in your monthly, that they are a good dressing for cherry-trees. It is the prevalent opinion here, that they are absolutely good for nothing as a manure; and, consequently, they find their last resting-place in the street.

Our soil is light and sandy. The farmers just here prefer lime and ashes, while two or three miles off, where it is heavier, they use marl abundantly. We have many old gardens that have been manured so often they are too stimulant, and cause the produce to "wither away" under our hot suns. I know this can be remedied, by mixing with them a heavier soil, &c.; but I have been wondering, lately, whether coal ashes might not prove suitable by supplying them with mineral matter.

If you, sir, can inform us of their practical uses in any way, you will at least much oblige your subscriber.
January 1849. WEST JERSEY.

ANSWER.—The only analysis of our anthracite coal ashes, that we have seen, is the following, by Professor Emmons, of Albany:—

Analysis Peach Mountain Coal—Gray Ash.

Silex and silicates,	70-34
Sulphuric acid,	1-50
Chlorine,	0-06
Carbonate of lime,	8-36
Phosphate of lime and phosphate peroxide of iron,	4-50
Carbonate of magnesia,	1-84
Alumina and peroxide of iron,	2-00
	97-50

Professor Emmons adds to the above analysis, that "we may suspect the presence of phosphate of lime in coal ashes, and hence, practically, that they are of importance in agriculture, even though we omit to notice the carbonate of lime and magnesia which they contain."

Now, to make the matter plain, let us compare roughly the value of coal ashes, as regards lime, &c., with the ashes of the oak-tree, one of the commonest kinds of fuel.

According to an analysis of the royal oak, (Liebig's,) the ashes of that tree contain over fifty per cent. of lime, over five of potash, three of magnesia, and not one part of silica. Another analysis of the white oak, (Berthiers,) gives three per cent. of silica. Let us put the two ashes in contrast, so as to show the proportional value in lime, potash, &c.

Coal Ashes.

Lime,	8-36
Phosphates	4-50
Silica,	70-34

Oak Ashes.

Lime,	50-58
Potash,	5-65
Silica,	3-37

Or Elm Ashes.

Lime,	47-80
Potash,	21-92
Silica,	3-07

A comparison of the above will show that fresh wood ashes contain about six times as much lime as

coal ashes; and that it is also far richer in potash, which exists in but very small proportion in coal ashes. It is evident that, though by no means valueless in these ingredients, coal ashes are not comparable in value to wood ashes, where lime, potash, or phosphates are required.

But the largest part of coal ashes is silex and the silicates. Our readers must not look upon these as representing sand or flint glass; for a considerable part of silica is soluble under certain conditions, especially in clayey soils, and thus enters quite largely into the composition of certain plants. Some plants, such as the oak or the apple, contain very little silica,—say from one to three per cent. But Indian corn (the stalk) contains twenty-nine per cent., rye sixty-four per cent., oats fifty-three; hence it is evident, that if coal ashes contain a large percentage of silica, they must be highly useful to these crops, even though they contain little lime, &c.

We have before recommended coal ashes, as particularly well adapted for the cherry-tree. This advice was founded on accidental experience, and not upon scientific knowledge. But a little investigation explains the reason. The bark of the cherry-tree contains (Liebig) nineteen per cent. of silica, while that of the apple or pear contains not a half per cent. Hence it is easy to see why coal ashes would produce little or no good effect on the pear or the apple, as compared with the cherry-tree.

As the bark of the grape-vine contains (Emmons) fourteen per cent. of silex, there can be no doubt that coal ashes form a valuable manure for this plant.

As silica is only rendered soluble by an alkali, such as potash or soda, it is easy to see why coal ashes are more beneficial on clayey than on sandy soils, (besides rendering the former lighter.) Clay soils almost always contain considerable alkali—sandy soils very little—and clay soils retain water, while sandy soils speedily lose it.*

Those who have been in the habit of throwing away coal ashes, as useless to all plants, will do well to keep them for all crops with stiff and glazed stems, abounding in silex, such as corn and grain, and for such trees as the cherry, the grape, the linden, and almost all evergreens, since they all require silica in the formation of their wood and bark.—*Horticulturalist.*

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

The foregoing article contains valuable information, and we hope that exact experiments will be made on the utility of coal ashes as a manure, particularly as immense quantities of these ashes are thrown away. We have experienced, and observed in other cases, decided advantage in the use of coal ashes; but our experiments have not been extensive, excepting in cases where we have used them in compost or on land with other manure.

We are making more exact experiments with coal ashes this season, and we hope that others will test them fairly and report to us the result. We have occasionally published articles showing their utility, and among the facts that we presented was the case of potatoes and beans growing in nothing but coal ashes.

One difficulty attends experiments on this subject, which is the mixture of some wood ashes, from the use of charcoal or wood used in igniting a coal fire.

* A mixture of cheap soda ash or dissolved potash, with coal ashes, just before using them, would no doubt add greatly to their value in sandy soils.

Some rekindle the fire every morning, others only once a week, or a fortnight. So what is usually called coal ashes, contains a portion of wood ashes, and that portion varies materially, being ten times as much in some cases as in others. For nice experiments, pure coal ashes should be used, which may be obtained, where the fire is continued for several days, by excluding the first lot of ashes after using coal or wood.

We should depend more on accurate practical experiments, than on analyses. The laboratory of nature differs from that of the chemist; and various combinations and changes take place during the growth of the vegetable, in the earth, the air and the plant, which no knowledge of chemistry, or vegetable anatomy or physiology can explain.

Analyze the human system, and feed man by strict rule on the elements in plants and animals that compose it, and he will denounce the rules that restricts both his taste and his judgment, as earnestly as did Sancho Panza the physician who had special charge of his health, and told him when and what he should eat, touching with his forbidding wand every article his gnawing appetite craved.

Yet we would not depreciate science, for it is diffusing its beams of light around the path of the cultivator, rendering it more delightful, and his progress more easy. But we would recommend scientific rules to the cultivator as a matter of experiment, and their confirmation by practical application, before trying them extensively; for science, in its practical application to feeding the growing plant or animal, is imperfect. We are told that the potato contains very little oil or fattening property, yet it will make fat swine; and a higher order of beings are made fat and strong on this valuable root, when they can get a good supply. In many parts of Ireland, it is the principal food, producing a hardy race in good and comfortable condition, far excelling in portliness many who have nothing to do but feast on fat things.

A SPECIMEN OF PENOBSCOT FARMING.

We mentioned on Saturday that Captain Nathaniel Bryant, of Dexter, last week sold to John Low, Esq., of the Old City Market, a yoke of beef oxen for \$170,50. We learn that these oxen were almost entirely fattened on ruta bagas. Captain Bryant last season raised three thousand bushels of ruta bagas. On three acres of land he raised between twenty-four and twenty-five hundred bushels, a portion of which he sold in the Bangor market for fifty cents a bushel, while the average cost of his whole crop, exclusive of land rent, was but four cents a bushel. He prepares the land as for wheat, and sows the seed in rows two feet apart with a sowing machine, with which one man can plant three acres in a day.

He has never failed to secure a good crop, and they keep well and make good food for all his cattle and sheep. He thinks that farmers in Maine should raise large quantities of this valuable turnip.

Captain Bryant was very successful last season in his wheat crop, having raised one hundred and fifty bushels of Georgia red wheat, all fit for seed, from eight bushels of sowing on eight acres of land. This is less than the usual quantity of seed, but he thinks it is quite sufficient. This seed wheat he has sold

for about two dollars a bushel. He will sow ten acres to wheat the present season.

He has upon his farm a flock of one thousand sheep.

In conversation with Captain Bryant, in which we gathered these facts, he stated to us that he had been visiting the farmers in New Hampshire and Vermont for the purpose of examining stock, and seeing what was going on, and learning something in the great art; and he had returned better than ever satisfied with the soil of Penobscot, and the prospects of farming here. Industry, economy, skill, and enterprise are needed here in order to succeed; but without these there can be no success any where, and with these there can be profitable farming in Penobscot, even with the disadvantages of the weevil and blight of the two or three years past. — *Bangor Courier*.

GREAT FARM.

The United States Patent Office Report says, "One of the greatest dairies in our country is that of Colonel Meacham, of Pulaski, N. Y. His farm consists of one thousand acres, three hundred of which are devoted to grass; and he keeps one hundred head of cattle and ninety-seven cows. In one year he made thirty thousand pounds of cheese, twenty thousand of which sold at one time, in New York, for from six and a half to seven cents per pound. He feeds his cows mostly on hay and carrots; of the latter, he raises two thousand bushels, and gives each cow half a bushel per day. And besides the benefit derived from his grass for his stock, he gathers not less than three hundred bushels of grass seed."

USES OF SOAP SUDS.

At Towne's Hotel, in Warren, Trumbull county, we saw an Isabella grape-vine, said to be but three years old, planted under the kitchen window, which had climbed to the second story, a good way towards the ridge pole, and extended its branches around the corners of the building to a distance not less than twenty or thirty feet, and, from within four or six feet of the ground to the extremest branch, was full of clusters of fruit. We were assured that the only extra advantage it had was watering it well, nearly every day, with dishwater, and occasionally soapsuds. The following is from one of our exchange papers: —

SOAP SUDS. — The finest peach and apricot trees that we have ever seen, received a weekly or monthly wash of soap suds, after the clothes of the family had been duly cleansed. A bucket full to a tree, taking them in rotation, answers a capital purpose to destroy the eggs of insects, and supply potash where it is much needed. Never waste in a sewer, or about the kitchen, a fertilizer so valuable as soap suds. — *Ohio Cultivator*

TO TRAIN A HORSE TO THE HARNESS.

You must be very gentle with him. You may commence by throwing a rope over the back and letting it hang loose on both sides; then lead him about, caressing him, until he becomes satisfied that it will not hurt him; then put on the harness, and pull gently on the traces. In a short time, by this kind of treatment, he will be prepared for work.

INDUSTRY. — "There is more pleasure in sweating an hour than in yawning a century."

Domestic Department.

SUGAR FOR PRESERVING BUTTER. — A great deal has been written on preservatives for butter. Some writers say, if the buttermilk is wholly separated from the butter, that no preservative is necessary, as pure butter will keep well without any addition. Yet very few ever attempt to keep butter without the aid of some preservative; and most persons prefer butter slightly salted, and some would have it sugared also. We have known a few individuals who preferred butter without salt, and at each churning a little has been kept pure for their special use.

Some persons say that salt is the only proper preservative of butter, as other substances, such as sugar, saltpetre, &c., are injurious to the quality. Now, this reminds us of those dictatorial individuals who would make their taste a standard, though it is at variance with that of the majority of consumers. One pomologist says that a vinous-flavored peach is the best, and that a pear of a champagne quality should be preferred, while the majority of mankind are in favor of sweet, luscious fruits. One person prefers tea, another coffee, and a third would like something a little more vinous or spiritous.

How absurd, then, when tastes are so different, for any one to assume the authority of judging for himself and for others too! Salt is used in butter both for the purpose of preservation and to render it more palatable. But for long keeping, twice as much salt is used as is necessary to adapt it to the taste of consumers generally. This is evident from the small quantity of salt in lump butter, which usually sells high in market, while tub butter, equally as good, excepting the larger quantity of salt, generally sells twenty-five per cent. lower.

As the large quantity of salt, used for preservation, is injurious, as to taste, why should we not use a suitable quantity of salt for taste, and add sugar as a further preservative? For our use, we prefer butter and meat preserved, in part, by sugar, instead of using salt wholly, and using for preservation twice as much as would render it palatable. Butter and meat, preserved partially by sugar, are more healthful, as well as palatable.

We copy an article from the Pennsylvania Cultivator on this subject; but we do not endorse the recommendation of saltpetre for butter, nor are we prepared to say that it is injurious. But we choose to refrain from articles of doubtful utility, and which may be injurious or dangerous.

Sugar-Curing of Butter. — Persons who put up keg butter for their own use, or for a distant market, usually salt their butter very high. This high salting necessarily detracts from its quality, injures its ready sale, and reduces its price. If we can modify this excess of salt, by using more palatable substances, of equal efficacy, as preservatives, it will be an improvement. Chemists tell us that sugar is one of these substances; and experience gives us the same information. Who is not familiar with "sugar-cured hams"? If pork can be cured with sugar, why may not butter be so preserved also? is a common

sense inquiry. Experience has shown that it may. Dr. James Anderson, the celebrated agriculturist, whose treatise "On the Management of the Dairy, particularly with Respect to the Making and Curing of Butter," is still our highest and best authority on the subject, found, from some years' trial of it, that the following named composition — the properties of which we believe were discovered by his amiable lady — was far preferable to salt alone, as it not only preserves the butter more effectually from all taint of rancidity, but makes it also look better, and taste sweeter, richer, and more marrowy, than portions of the same butter cured with common salt: —

Composition. — Take of sugar, one part; of nitre, one part; and of the best Spanish great salt, (or rock salt,) two parts. Beat the whole into a fine powder, mix them well together, and put them by for use. The doctor continues: —

"Of this composition one ounce should be put to every sixteen ounces of butter; mix this salt thoroughly with the butter as soon as it has been freed from the milk, and put it, without loss of time, down into the vessel prepared to receive it, pressing it so close as to leave no air-holes, or any kind of cavities within it. Smooth the surface, and if you expect that it will be above a day or two before you can add more, cover it up close with a piece of clean linen, and above that a piece of wetted parchment, or, for want of that, fine linen that has been dipped in melted butter, that is exactly fitted to the edges of the vessel all round, so as to exclude the air as much as possible, without the assistance of any watery brine: when more butter is to be added, these coverings are to be taken off, and the butter applied close above the former, pressing it down and smoothing it as before; and so on till the vessel be full. When it is quite full, let the two covers be spread over it with the greatest care, and let a little melted butter be poured all round the edges, so as to fill up every cranny, and effectually exclude the air. A little salt may be then strewed over the whole, and the cover be firmly fixed down, to remain close shut till it be opened for use. If all this be carefully done, the butter may be kept perfectly sound in this climate for many years. How many years I cannot tell; but I have seen it two years old, and in every respect as sweet and sound as when it was only a month old.

"It deserves to be remarked, that butter cured in this manner does not taste well till it has stood at least a fortnight after being salted; but after that period is elapsed, it eats with a rich, marrowy taste that no other butter ever acquires; and it tastes so little of salt, that a person who has been accustomed to eat butter cured with common salt only, would not imagine it had got one fourth part of the salt that would be necessary to preserve it."

It is to be hoped some of our farmers, on reading the above, will follow its recommendations. The composition mentioned is, we have understood, much used in Goshen, Orange county, New York, a place famous for its superb butter. Great care should be taken to get the purest salt and sugar. That known through the country as the "ground alum" is the best salt. The sugar should be of the purest white — either the loaf or "fallen loaf." Those excellent butter-makers in the glades of the Alleghanies, would do well to make some experiments for themselves, in this matter.

SCIENCE IN THE KITCHEN. — Professor Liebig, in a letter to Professor Silliman, says, "The method of roasting is obviously the best to make flesh the most nutritious. But it does not follow that boiling is to be interdicted. If a piece of meat be put into cold water, and this heated to boiling, and boiled

until it is 'done,' it will become harder and have less taste, than if the same piece has been thrown into water already boiling. In the first case, the matters grateful to the smell and taste go into the extract — the soup; in the second, the albumen of the meat coagulates from the surface inward, and envelops the interior with a layer which is impregnable to water. In the latter case, the soup will be indifferent, but the meat delicious." — *Maine Farmer*.

Boys' Department.

TO YOUNG MEN. — There is no moral object so beautiful to me as a conscientious young man. I watch him as a star in the heavens: clouds may be before him, but we know that his light is behind them, and will beam again; the blaze of others' popularity may outshine him, but we know that, though not seen, he illuminates his own true sphere. He resists temptation not without a struggle, for that is not virtue; but he does resist and conquer; he hears the sarcasm of the profligate, and it stings him, for that is the trial of virtue, but heals the wound with his own pure touch. He heeds not the watchword of fashion; it leads to sin: the atheist, who says not only in his heart, but with his lips, "There is no God!" controls him not; he sees the hand of a creating God, and rejoices in it.

Woman is sheltered by fond arms and loving counsel; old age is protected by its experience, and manhood by its strength; but the young man stands amid the temptations of the world like a self-balanced tower; happy he who seeks and gains the prop and shelter of morality.

Onward, then, conscientious youth! raise thy standard and nerve thyself for goodness. If God has given thee intellectual power, awaken it in that cause: never let it be said of thee, "He helped to swell the tide of sin, by pouring his influence into its channels." If thou art feeble in mental strength, throw not that drop into a polluted current. Awake, rise, young man! assume the beautiful garb of virtue! It is fearfully easy to sin; it is difficult to be pure and holy. Put on the strength, then; let truth be the lady of thy love — defend her. — *Southern Rose*.

Health.

VENTILATION. — Good ventilation is nowhere more important, although nowhere more neglected, than in our bed-chambers. The bad effect of sleeping in small and close rooms has been often mentioned; to which we may likewise add, that of having thick curtains drawn close round the bed, which confine the air that has been exhaled, surrounding us with an impure atmosphere. Provision should be made for a continual change of air in the apartment during the night, by the escape of the heated and foul air, and the introduction of cool and fresh air. The first may be effected by some aperture at the top of the room; perhaps keeping the top sash open for about an inch may be sufficient: of course, care must be taken that the fresh air brought in at the top of the room shall not act as a draught, striking upon the bed, but that it enters by small apertures, and diffuses itself as quickly as possible; and likewise that there may be the means of regulating the quantity according to circumstances. If the temperature of the fresh air can be regulated, it will be better.

A little apparatus for ventilating a bed-chamber in the night, invented by the Marquis de Chabannes, though not very effectual for a large room, is perhaps

worth mentioning for a small one. It consists of a little box, or enclosure of tin or other metal, having an opening in front, in which may be placed a small lamp. The upper part, or flue, is to be inserted in the wall, on the chimney breast, and is to go quite into the flue of the chimney. The air which the lamp requires for combustion will thus pass into the flue, occasioning fresh air to rush into the room to supply its place. This machine is, in fact, a little chimney, in which the lamp is the fire. It should be placed near the top of the room.

It is highly deserving of attention, that although we never use fires without flues, yet we very absurdly have long continued to burn lamps of considerable size, which are, in fact, so many fires, in the middle of our apartments, even when small, without the least attempt to carry off the burnt air which they are constantly generating. No wonder, then, that the air, in such places, is often felt to be oppressive: it is, indeed, extremely unwholesome. — *Cyclopædia of Domestic Economy*.

Mechanics' Department, Arts, &c.

AN INK-SUPPLYING PEN-HOLDER. — A desideratum, which has for the last twenty years baffled the skill of a host of inventors, has just been produced, with complete success, by Conant and Co., of this city. The article is made of pure silver, in size no larger than a common pencil-case. By touching a spring, the ink is let on the pen at the pleasure of the writer, dispensing entirely with the use of the inkstand. It is said that twenty pages of letter paper, or four thousand words, may be written by once filling the holder. The article, being adapted to a gentleman's pocket or lady's reticule, will be found of great service to the travelling public, and all who wish to be provided with pen and ink at an instant's notice. — *Boston Evening Journal*.

ARTIFICIAL STONE. — The following is an article in the London Times of March, 1848: "A process has been patented by which artificial stone, of every quality, may be produced, from artificial granite to statuary marble. This invention is, from its cheapness, a great advantage for the purposes of architectural decoration, and, from its plastic nature before it becomes hard, of great service to sculptors in taking casts of statues, busts, &c., and even of figures of the size of life. The cost is, in all cases where carving is required in stone, in which this composition is substituted, less by nine tenths. The invention is founded on the chemical analysis of the natural varieties of stone, and the manufacture is capable of such modifications as are requisite to produce all the varieties. The artificial stone produced is less absorbent than natural stone, and is superior in compactness of texture, and will resist frost, damp, and the chemical acids. It is made of flints and silicious grit, sand, &c., rendered fluid by heat, and poured into moulds as required, till cool and hardened. Its strength and solidity enable it to resist more blows than real stone. The specimens of the invention, which are now to be seen at the office of the works, No. 6 John Street, Bedford Row, are exceedingly curious. They consist of many varieties, some being plain pieces of coping stone, stones for variegated pavement for halls and rooms, stone ornaments, such as mouldings for friezes, finials, and some more elaborate, having flowers and devices apparently cut with a chisel. There are also some grindstones, and hones used by agricultural laborers for sharpening scythes and tools. The invention is also appli-

cable to the lining of cisterns and water pipes, its vitreous qualities insuring cleanliness. Its extreme cheapness is also a matter of consideration to those who require ornamental additions to houses.

HOW TO CATCH A SHEEP.

In catching sheep, never seize them by the wool on the back, as it hurts them exceedingly, and has, in some cases, been known to kill them, particularly in hot weather, if they are large and fat. Indeed, the best way is to avoid the wool altogether, and to accustom yourself to take them by the hind leg, or, what is still better, by the neck, placing one hand under the jaws, and the other at the back of the ears: by lifting up the head, a child may hold almost any sheep. But much depends on how a flock is treated. Few people are sufficiently gentle with sheep. In Maryland, and south of it, sheep are rarely approached near enough to touch or catch them, except as farmers are themselves treated, in all countries, and alike by tyrants and demagogues, when they are to be sheared or slaughtered.

When, for the first named purpose, sheep are to be caught, in the region referred to, they are huddled up in the corner of a large pen, as often as there are sheep in the flock; each time frightened and worried, until the shearer runs in and grabs by the wool the first one he can catch. The residue of the flock is then left until that one is divested of his wool, and small bits of his skin here and there, and then turned loose, as the farmer is after the election, until the next shearing time. When brought up to be slaughtered, the only difference is, that the sheep is attracted by a grain of salt, or a handful of corn, while the farmer is charmed with the sound of the drum and fife, and liberty and glory!

By kind and gentle usage, and occasional salting, a man may have his sheep so tame that he may play with them, as every man that has a heart will sometimes do with his dog. At any rate, the feeling and thoughtful farmer will never suffer his sheep, or any thing else under his guardianship, to be unnecessarily terrified, or otherwise ill treated.

"I would not enter on my list of friends,
Though graced with polished manners and fine sense,
Yet wanting sensibility, the man
Who needlessly sets foot upon a worm."

— *Model American Courier.*

SALT FOR CATTLE.

In giving salt to neat cattle or sheep when stall-feeding, care should be taken not to give too large a quantity, or so much as would relax the bowels. If hay that is given to animals has been salted when storing, every farmer should be aware that this would be sufficient salt for the animals consuming it. One gallon of salt put to the hundred bundles of hay when storing, will never act injuriously upon any animal fed on this hay, as some of the salt may be lost. For hay that has been injured in curing, perhaps double this quantity of salt might be applied, but damaged hay should not be given to animals that are stall-feeding for the butcher. The object of giving salt to animals confined in stalls in winter, and fed on dried food, is to keep their bowels in a proper state, without scouring them. When such animals get a proportion of roots, however, there is not much danger of any thing wrong with the bowels. We have unquestionable authority that a due proportion of salt may be given to stall-feeding animals with excellent effect; but, of course, the farmer requires to be careful that too large a quantity is not given, whether in the hay, or in any other

way. There is no part of the farmer's business which requires closer attention than the stall-feeding of cattle, to make it profitable. Without this, food may be wasted, and the animals not improved; and unless they are constantly improving by the food given to them, and the mode of management adopted, something must be wrong, and a loss is almost certain to be incurred, instead of a profit. — *Agricultural Journal.* (L. C.)

HOOF-AIL IN CATTLE.

The disease, sometimes called "foul in the foot," is most common in open winters, or when cattle are obliged to travel or stand much in mud. It is known by lameness, soreness between the claws of the foot, with inflammation, and, in advanced stages, discharge of fetid matter, which issues from between the hoof and the foot. A separation of the hoof after a while takes place, and if the disease is not checked, the hoof sometimes comes off. Though the disease, like foot-rot in sheep, is believed sometimes to originate spontaneously, there is good reason to believe that it is contagious; and, on this account, an animal, as soon as it is affected, should be kept by itself. The best remedy, if used when the disease first manifests itself, is blue vitriol or sulphate of copper. First wash the foot in soft soap suds, and then apply the solution of vitriol to the affected part twice a day. If the disease is of long standing, the hoof should be pared away from the upper edge, the offensive matter taken out as thoroughly as possible, and an ointment of corrosive sublimate and lard applied. The animal should be kept from wet, and, if the foot is much sore, it should be protected by a bandage of strong cloth. — *Albany Cultivator.*

BLOODY MILK.

MESSES. EDITORS: When I was quite small, my mother had a cow that gave bloody milk. I had an uncle who was in the habit of doctoring his own cows, and occasionally his neighbors', if requested, with pretty good success. He was sent for. He inquired on which side the cow gave the bloody milk. I went to the stable with him to see the operation. He bled the cow under the belly, on the side from which she gave the bloody milk. He directed that bittersweet ointment should be freely used about the udder for a few days, and said the cow would give "no more bloody milk." I state this to show that he had confidence in the remedy. Last spring, I had a heifer that gave bloody milk. She had a fine calf by a Durham bull, and bore the marks of a good cow, so much so that I refused the highest price of good cows for her before she had her calf. I recalled to mind, as near as I could, the process by which I had seen a cow cured of the same disease, when a lad. I tied a cord around her body, raised the vein by the help of a twist, and drew probably three quarts of blood from the vein leading to the diseased side of the udder. I procured some roots of bittersweet, the bark of which was boiled in water until the strength was extracted, then strained, and the liquor simmered with lard until the water was nearly evaporated: this ointment was used freely by rubbing it well over and about the udder with the hand three times a day, after milking, for several days. I do not say that she gave "no more bloody milk." By letting the strippings remain in a vessel by itself for twelve or twenty-four hours, and carefully pouring off the milk, it was found that a slight sediment had been precipitated containing bloody matter, which continued for four or five days after the bleeding operation was performed; since which time not the slightest trace of blood has been

discovered in the milk, and she has fully answered my expectations. Every body knows, or ought to know, bittersweet. It is found in the thickets, and consists of a woody vine, which runs spirally up the bushes or small trees, and branches with the top of the tree: it has a long, narrow leaf, and bears clusters of berries: it blossoms in the spring: in summer, the berries are green; in autumn, a beautiful yellow; and in the winter, red. The root is of a golden yellow color, and its taste, as its name indicates, bittersweet.

LEE Co., IOWA, 1849.

TORPEDO.

P. S. Would not this disease have been likely to have terminated in what is called the garget in the udder had it not been attended to in season? T.
— *Prairie Farmer*.

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

Every body does not know the "bittersweet," though he ought to know it, as the writer of the foregoing article observes. We knew a case of a physician choosing in the fields a poisonous plant for the bittersweet; and he and his friend, who chewed it by way of trial, found it bitter, but not sweet. Bittersweet, or woody nightshade, (*Solanum dulcamara*.) belongs to the same genus as black nightshade, (*Solanum nigra*.) a poisonous plant.

Bittersweet has lower leaves heart-shaped; flowers purple; berries oval, bright red at maturity; common in low grounds, and beside brooks; flowers in July.

Black nightshade has an erect stem; leaves ovate; flowers white; berries round, black. It grows among rubbish; is supposed to be imported from Europe. If this be correct, it is probably found only in some sections of the country that have been long settled.

LOCKJAW WITH CHLOROFORM.

A correspondent of the Spirit of the Times describes successful treatment of lockjaw in the horse with chloroform. He says, "I have had several opportunities of testing this mode of treatment, and in no instance has it failed, with the exception of one, when the administration of chloroform was delayed till the patient was almost in the agonies of death.

"My plan of treatment in this hitherto incurable disease is as follows: On the first symptoms, I give a drench composed of thirty drops of Croton oil, intimately rubbed in a mortar with thick mucilage of gum arabic, and gradually diluted with a pint or a pint and a half of good ale. Immediately on the drench being swallowed, the patient must be bled profusely, put in a warm stable, and, if the weather be cool, carefully covered with rugs. Now is the time to use the chloroform: four ounces will be sufficient for an application; and a convenient mode of applying it is, to make a temporary nose bag of soft material, and as air-tight as possible: in the bottom of it place a sponge, and on this pour the liquid: by introducing the horse's nose, and tying the bag round and above the nostrils, he will be obliged to inhale, and in a few minutes will be well under its influence. Upon rising, the muscles will have lost the rigidity peculiar to the disease, his nervous system will have become quieted, and his face have lost that anxiety of expression which accompanies lockjaw.

"The chloroform must be repeated three or four times, say an hour apart; on the horse's recovery, his strength should be supported by light and nutri-

tive food; and, if the weather be warm, turning him out in a pasture two or three hours a day will extend the muscles of his neck, and bring him to the use of his limbs.

"I would suggest that hand-rubbing of the extremities during the applying of the chloroform will be highly beneficial."

THE POTATO ROT.

In 1844, the potato crop was attacked with this disease in the state of New York; and having something of a crop planted that year, I felt a good deal of solicitude to ascertain the cause and to find a remedy. Most people, with whom I conversed on the subject, claimed that the disease commenced at the root; but by careful examination I was convinced that it was not so, and that it first showed itself upon the most tender leaves. I first observed it on the outer edge of the young leaves, and gradually extending towards the stem, and finally passing to the stock, and down the stock to the root, before I could see the root affected at all. When I found the signs of the disease upon my own crop, I directed that fresh ashes should be sown over the field broadcast, as you would sow plaster, while the dew was on, and also directed that quick lime should be mixed with the ashes. My hand did not attend to the matter as soon as he ought, and the disease had made considerable progress before this remedy was applied. The man then took a quantity of ashes and lime, and mixed them, and sowed over about one half of the field, not having sufficient to sow over the whole. The result was, when we harvested the potatoes, I had about half a crop on that part of the field thus sown over, and on the part not sown it was a complete failure.
M. B. B.

— *Wisconsin Farmer*.

REMARKS BY THE EDITOR NEW ENGLAND FARMER.

Numerous remedies are recommended for the potato rot. The above is not new, but it seems to be a new mode of application. Ashes and lime, applied in the hill, are not a sure preventive of the rot, yet they are partial preventives, as we have found from experience. We think the mode of application here recommended will have only a partial effect in severe cases. We advise its trial.

Although there has been no complete remedy or preventive of the potato rot, yet there are numerous circumstances and applications that have an important effect, so that farmers may now do much towards securing a good crop, by avoiding predisposing causes, and using partial preventives.

BIRDS.

The following excellent remarks on the subject of destroying birds originally appeared in the Boston Patriot:—

We are of opinion, that the labors of the scientific ornithologist are of far more practical utility than the casual observer supposes; and that, even in the business of legislation, a regard to his researches might prevent many errors, which may much affect the public welfare. Legislation on the subject of birds has been marked by some essential errors, which have led to real evil. By it woodcocks, snipes, larks, and robins, are protected at a certain season of the year, whilst war to the knife is declared against crows, blackbirds, owls, blue jays, and hawks: these last are treated as a sort of pirates, subject to a

suspension at the yard-arm, with the least possible ceremony. It so happens that the character of these very birds has been singularly mistaken; for while the ordinance of legislation has been thus systematically levelled at them, they, on the principle which man would do extremely well to imitate, have been returning good for evil; they have been diligently engaged in exterminating all sorts of vermin, whilst never were the vilest vermin half so ill-treated by the human race. The crow, for example, who is generally regarded as a most suspicious character, has had great injustice done him.

In the spring, when the ground is moist, he lives in a state of most triumphant luxury on grubs; he eats the young corn, it is true, but it is a necessary of life to which he never resorts except when his supply of animal food is shortened. After the corn is tolerably grown, he has nothing more to do with it; and in any stage he destroys five hundred pernicious grubs and insects for every blade of grass which he pillages from man. In the Southern States, he is regularly permitted to accompany the ploughman, and collect the grubs from the newly opened furrow; his life is thus secured by the safest of all tenures — that of the interests of man in permitting him to live. — *Valley Farmer*.

ADVICE IN POULTRY KEEPING.

The principles upon which I rely for success in keeping hens, are, first, to have two breeds — a few to hatch and rear the chickens, and twice the number of everlasting layers, as eggs are more profitable than chickens; — second, to get a hatch as early as possible in spring, and to keep them well; these never cast their feathers, like the old birds, and, if they begin to lay in autumn, lay more or less all winter; — third, never to keep old fowls, (none but favorite fowls ought to be kept more than two years;) old birds lay larger eggs than pullets, but not nearly so many; — fourth, to give them the best barley I could get, and as much as they could pick up, once a day in summer, and twice in winter: they are not only more profitable, well kept, but eggs are better. The two breeds I like best are the spotted Dorkings for sitting, and the Pheasant breed for laying. — *Agric. Gaz.*

SINGULAR MODE OF KEEPING FISH ALIVE.

Those worthy individuals who take delight in Izaak Walton's art, and who, moreover, are in the habit of sending the result of their sports to their epicurean acquaintances, must learn an indispensable piece of information, viz., how to keep fish fresh. This may be done by soaking the soft part of bread in brandy, and inserting it into the gill of the fish, while it is yet alive, and afterwards sprinkling it over gently with brandy. Thus prepared and carefully packed in straw, the fish will keep alive ten or twelve days, as may be proved by putting it in fresh water at the end of that time, when, after a few hours' immersion, it will recover from its protracted drunkenness. — *London Literary Gazette*.

A NEW MANURE.

Robert Bryson, Esq., of Cumberland county, about eight miles from Harrisburg, has been experimenting for the last ten years, to make exhausted tan-bark available and valuable as a manure. Besides his magnificent farm, he likewise carries on the tanning business. Finally, after a great deal of expense and many failures, he has succeeded in discovering a method of producing from the tan an efficient ma-

nure. This is his plan: He has his tan wheeled out on to a level piece of ground, and levelled off, two or three feet thick. Over this he spreads a layer of two or three inches of lime, and over that again a stratum of tan, then a layer of lime, and so on. He lets the bed so prepared remain for two years; at the end of that time he finds himself in possession of a bed of manure, the effects of which upon the land can hardly be surpassed for the richness of its product and the durable fertility which it imparts. — *Lancaster Co. Pa. Farmer*.

For the *New England Farmer*.

LET US LOVE ONE ANOTHER.

Let us love one another: sure life must be dreary,

If the star of affection is shrouded in gloom,

And lonely the path of the traveller weary,

Who passes unloved to the rest of the tomb.

Let us love one another now in youth's sunny morning,

While the sky of existence is cloudless and fair;

Let the pure gem of Friendship, our bosoms adorn-
ing,

Beam brightly, though Time may bring sorrow
and care.

Let us love one another, and blossoms of pleasure

Shall gladden our footsteps wherever we stray;

For love, freely given, repays us full measure,

And scatters fair flowerets on life's thorny way.

LEBANON, CT.

E. C. L.

THE OLIO.

THE HONORABLES AT DINNER. — A few days since, several members of the New York legislature, representing some of the interior counties of that state, were at a boarding-house in New York city, where, at a table, they displayed what was deemed by some of the boarders an anti-democratic fondness for honorary titles. In addressing each other, the style was, —

"Will the honorable gentleman from Chatauque hand me the butter?"

"Will the honorable gentleman from Otsego be kind enough to pass the butter?"

"Certainly, sir, we may expect something sharp from the honorable member from Chenango."

A down-cast Yankee clerk, becoming quite uneasy under this display of empty honors, called out, in a loud, sarcastic tone, to the black waiter, —

"Will the honorable gentleman from Africa be kind enough to hand me some onions?"

The laughter that ensued may be imagined. The honorables were henceforth silent. — *Selected*.

Drinking water neither makes a man sick, nor in debt, nor his wife a widow. — *Spanish Proverb*.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 25 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.

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BOSTON TYPE AND STEREOTYPE FOUNDRY.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, JUNE 9, 1849.

NO. 13.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

CORN FODDER.

IN New England, corn fodder, used green or dry, yields a larger crop than any other cultivated; and it is among the most valuable crops raised as to quality. There is probably no better crop for soiling, and dried and properly prepared for cattle, it is equal to good hay. We have many accounts of great crops, from extra pains in the preparation of the soil; but we find that with a soil in only tolerably good condition, a large amount of fodder is produced.

An acre of good corn land, well dressed, will generally produce four or five tons of dry fodder, and four times that amount of green. As feed grows short the latter part of summer, particularly on dry lands, the farmer should provide some fodder for his cattle; and none is cheaper than that of Indian corn, as has been abundantly proved on the milk farms in this region, where the practice is almost universal.

The famous Chinese Tree corn is an excellent variety for fodder, yielding a large crop, of excellent quality. Some farmers plant the sweet corn, as it yields fodder of a superior quality. The southern corn grows rank, and yields more than the northern; yet some prefer the northern kinds, as they produce finer fodder, and the cattle eat it more readily; yet the majority prefer the southern, on account of its productiveness. The Chinese yields nearly as well as the southern corn, and the fodder is better.

Corn, for fodder, is often sown broadcast and harrowed in; but the crop will be larger if planted in drills, and dressed once by the use of the cultivator and hoe. By rather thick planting, a very large growth is prevented. Make the drills about three feet apart for large corn, and let the spears stand only two or three inches apart in the drill. It is often sown in broad drills, and allowed to stand so thick that there will be ten or twelve stalks to a foot in length.

BOMMER MANURE.

We have occasionally published articles on this subject, showing the imposition that has been practised upon the farming community by selling rights for making manure by an old system that was pat-

ented in France, and the patent expired in 1840. We have published these facts, and yet many farmers allow themselves to be imposed upon by paying for what has been published and scattered broadcast over the whole country, and is free to all.

The venders of Bommer's right have pursued a singular course of management. In the first place, application was made for a patent, and rejected for want of novelty. Soon after, during the absence of the commissioner of patents, an application was made in another name, and a patent obtained. But this does by no means establish the validity of the patent.

If the same system has been practised in this or any other country, it becomes public property, unless discovered in this country and patented by the inventor.

Another piece of imposition, which is in keeping with the rest, was the appointment of agents for the sale of Bommer's right, before he or any one else had obtained a patent. After so bold a beginning in this business, it is no wonder that there has been a complete system of the same character. Examine the statement of Mr. Ellsworth, commissioner of patents, published four years ago in the Albany Cultivator, and copied into other papers, and compare it with the advertisement of Bommer's patent, in the Farmer's Gazette, published some years since in New Haven, Ct., and see which is prior, the date of the patent or of the advertisement.

From the information which we have on the subject, we should think that the amount that has been taken from farmers for this fictitious right, which any one might have had by paying the subscription of a paper for one year, is not less than twelve or fourteen thousand dollars. Now, farmers, are you willing to be fleeced in this manner, rather than inform yourselves, and thus shun the impositions which some are disposed to play off in order to fill their pockets from your hard earnings?

FRUIT CONVENTIONS.

We lately announced the time and place of meeting of the North American Pomological Convention.

We learn from the Vermont Chronicle, that the state committee of this convention, in Vermont, at the request of many fruit-growers, have called a state convention, to be held at Montpelier on the 18th of October. Gentlemen interested in growing fruits in Vermont, and delegates from societies, are requested to attend.

We are pleased to learn that fruit conventions are becoming more common. They are of very recent origin in this country. In 1847, the first was held in Ohio, and to that state belongs the high honor of not only giving a start to these enterprises, but of conducting their conventions with a great degree of ability, intelligence, and candor, furnishing very valuable standard pomological documents, in the reports of their transactions, which we regard as among the most authentic productions on fruit that have been published in this country. What other states will follow the worthy examples before them?

CABBAGE TURNIP, OR KHOL RABI.

In Europe, and in some seed catalogues in this country, this plant is called *turnip-rooted cabbage*; but this is erroneous, let the authority for the name be what it may, for it is a turnip, and not a cabbage; but it may with propriety be called a *cabbage turnip*, as it has a cabbage taste. In form, growth, &c., it is in reality a turnip.

There are two kinds of the *Khol Rabi*, one with the turnip below, or in the ground, like a ruta-baga; the other has the turnip above the ground, resting on a stem similar to a cabbage stump, only very short, the turnip being almost on the ground. In this kind the leaves come out on different parts of the turnip, but mostly on the upper side. The most common, and the better variety is that below the ground.

The cabbage turnip is sowed at the same time, cultivated in the same way, and used for the same purposes as the ruta-baga. For the table, it is whiter, milder, and sweeter, or has less of the peculiar strong turnip flavor, and resembles the old French turnip in quality, but is a very little whiter, and less liable to become corky.

The cabbage turnip keeps better than the ruta-baga, and is less liable to injury from frost. In Maine, where the winters are less liable to a change in temperature, we used to leave these turnips out in the fall, and in the spring they were in as fine condition as parsnips in the same ground. In this state, a few years ago, some friends, to whom we gave some seed, said that they kept perfectly well out doors. But we left some out for trial, winter before last, — a very variable season; sometimes heavy rains and warm weather suddenly succeeded by severe cold, and the reverse, — and the turnips were destroyed by frequent freezing and thawing.

For cattle, the cabbage turnip is excellent, and we never perceived any unpleasant taste in milk, from feeding cows freely with them. It yields largely, but it has many roots or prongs, which is an objection. For stock or for the table, we prefer the cabbage turnip to the ruta-baga. We have sold them

to many of our neighbors, for a few years, who prefer them for the table to any other turnip, from November to May or June. Yet we recommend them for trial only, as every one may not give them the preference. Sow them by the side of the ruta-baga, and judge of their comparative value.

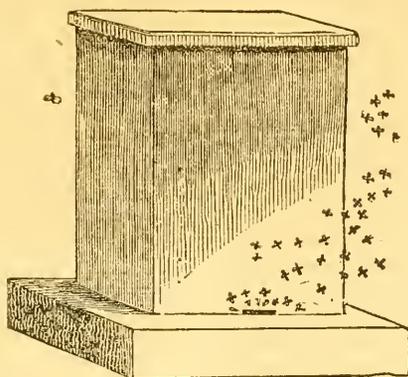
We raised a fine lot of seed, last year, of the genuine below ground variety; and those who would try it, may obtain some in the seed room of Messrs. Rugles, Nourse, Mason, & Co., adjoining our office, where specimens of the root may be seen.

ADVANTAGES OF AGRICULTURAL EDUCATION.

We copy the following remarks from the address of L. F. Allen, late president of New York State Agricultural Society, before that association.

Another, and a prominent advantage, which we should receive from good agricultural education, would be, that of more stability of character in our farming population. It is proverbial among travelled foreigners in this country, and it would be a subject of wonder among our staid people at home, — if an American could wonder at any thing, — that we are the most changing people in the world. We, as a population, have few, scarce any, local attachments. This, to an extent, is a true, although a severe censure. It arises, no doubt, — and naturally enough too, — from the wide extent of national domain of which we are the possessors, and from the natural sterility of much of the soil in our older communities, which cause an effort, and a laudable one too, to better their condition in our rural population; but more, I imagine, from the low standard of agricultural improvement, and a mistaken estimate of the value of the soil, and its application to the products which properly belong to it. But no matter what the cause. The fact is so, and it is a defect in our national character. How many among us but will, with a slightly tempting offer, sell his homestead without remorse — break up the cherished associations of his life — turn his back upon the graves of his kindred and his children — his birth-spot — the old hearth-stone of his boyhood — his family altar — even the brave old trees, which have, life-long, waved their branches over his childish sports, and shadowed his innocent slumbers when weary of his play, all — all, pass out of his hands, like a plaything of yesterday, unwept and unregretted, for the fancied advantage of a fresh spot in a strange and a newer land.

I must, however, in justice, make some exceptions to this general propensity in American character. There are some among the descendants of the early New England Puritans, and the ancient Dutch settlers of this state, who have, with a pious regard to the memories of their ancestors, and a wise attachment to the spots of their birth, retained, and, through the influences of a correct education and well-settled principle, bid fair to retain, the paternal acres which they have inherited — homes of plenty, contentment, and genuine hospitality; where retired virtues, like those practised by their fathers, have long hallowed them with a local habitation and a name. Such stand out as strong landmarks in the fitful changes of place and name throughout our country, and redeem, to some extent, the caustic remark of the late John Randolph of Roanoke, who once declared, on the floor of Congress, that he scarce knew an American but would sell his very dog for money!



BEE-HIVES.

The bee hive is an important article. Much depends on its construction. Among the many hundreds that have been invented, and some hundreds that have been patented, only a few are worthy of attention. Several kinds are too expensive, and others are too complicated, and of difficult management. Economy is necessary in the management of bees, else the profit will be small, or there may be loss instead of profit. If hives are complicated, they require more care than they will receive; hence the importance of having those that are simple and easily managed.

As most early swarms of bees produce more honey than is necessary to support them through the winter, they will have a surplus; and there is a great advantage in having this in neat drawers or boxes, free from bee-bread or brood comb, and where it may be taken away at any time; therefore the newly constructed hives, that afford this convenience, are preferable to the old fashioned hives, which require the destruction of the bees to obtain the honey; and then the honey is worth far less than that in boxes or drawers.

Many hives can spare fifteen or twenty pounds of honey in a season, all of the finest quality, under good management. One bee-keeper took from eight hives, last season, over twenty pounds of honey each, and left enough for the bees. Hives of various constructions, on the new and improved systems, may be had at the agricultural warehouses; or the farmer may construct them to suit his own taste.

Bee-keeping, with good management, is one of the most profitable branches of rural industry. Every other domestic animal, in this section of the country, must be fed from the labor of man. The horse, the cow, the sheep, the hog, the dog, and cat, all must have the provident aid of man, to lay in a supply of food for winter, else they perish. Not so with the industrious bees. They procure not only sufficient food in summer to support them through the winter, but a surplus, as a liberal reward to the owner.

And this food, which the bee provides, is stored away in such a manner that he can help himself, and not, like other animals, require man to deal it out

constantly, and carefully guard it from waste. Thus we see that the bee belongs to a high order of animals. In the construction of his comb, he is a perfect mathematician; and in providing for future wants, he shows all the foresight of the most provident of the human race, and he uses his food with all the care of a rigid economist.

We have a story of a bishop, who, on visiting the priests of his diocese, found many complaining of hard times and low salaries: at length he was surprised in finding one who had a very low salary, and yet was in the enjoyment of comfort and plenty. The bishop inquired the cause of his prosperity, and he was shown to the apiary, where numerous hives of bees were busy in the service of the priest. After that, when a priest complained to the bishop that his salary was low, he advised him to keep bees. And to thousands in our country might this judicious advice be given with great propriety — *Keep bees.*

GETTING MORE PRACTICAL.

We are happy to find that there is an opinion prevailing more or less throughout the community, that it is time the course of education in our seminaries should have a more practical tendency. Yale College and Cambridge have now their professors of agriculture. What would have been thought, forty or fifty years ago, of a professor of agriculture in one of those stately old colleges, where the sight of a farmer would have been considered as much out of place as a pig in a pulpit! We see it noticed in the journals of the day, that the trustees of Union College contemplate such an extension of the existing course of studies as to include the more useful application of science to the arts, such as civil and mechanical engineering, agriculture and agricultural and mechanical chemistry, &c., &c. We hope that the colleges throughout the Union will change their course of studies in such a way as to embrace a practical course of the above-named studies. — *Maine Farmer.*

Swarms of locusts, or grasshoppers, have appeared in Texas, literally covering the ground in some places, and devouring the wheat and corn. In other parts of the state, the corn and cotton have been injured by the cut-worm.

For the New England Farmer.

CRUELTY TO ANIMALS.

MR. EDITOR: Could the dumb beast speak or make known its feelings to its master, how often would that master have his feelings hurt for the manner in which he has treated his horse, his ox, or some animal over which he has control! The noble horse was given for the use of man, and to be by him treated kindly. There is perhaps no animal in the service of man of more actual profit, and one deserving of kinder treatment. But how often is he abused! Often is he loaded beyond his strength, and, if unable to move his load, is goaded and lashed by an unmerciful driver, until, with distended nostrils, he stares his master in the face, as if imploring mercy. How many horses are spoiled by being compelled to draw too heavy loads! When a horse is willing to draw all his strength will allow, how careful ought his owner to be not to go beyond this! The lash ought never to be applied to an animal that refuses to draw because his load is too heavy for him to move. The farmer who is always plying the lash to his team, seldom has a team that is well disciplined. I have always noticed that the best teams are those used by drivers who "bawl" and whip the least.

"A merciful man is merciful to his beast;" and he who is not merciful to his beast, generally shows but little mercy to his fellow-creatures. The man who will goad and abuse the dumb beast is very liable to abuse his own family. A horse that is treated kindly by his master, will treat him kindly in return. So with other animals in the service of man. For instance, take the cow that is rather cross about being milked. Few cows are made gentle by incessant beating. There is no more ready way to spoil a cow, when you sit down to draw the milk from her, than to give her a blow with the milking stool, or a kick with the foot, if she should happen to feel a little uneasy about standing. A person may be obliged to chase a cow around the yard several times before being able to get near her, after such unmerited treatment.

I well remember the way I managed with a kicking cow, when I was a youngster. Like other boys, I was fretful and hasty. Soon after I commenced milking, the cow would begin to step, and sometimes raise her foot as if about to kick. The first thing, with me, perhaps, would be to speak out sharply, and if that did not have the desired effect, the milking stool would come next. After this mode of management, the cow grew *no better very fast*. I soon had to tie her legs; and even then, she would contrive to kick over my pail of milk; and if she happened to get loose or break her rope, which was oftentimes the case, it was no easy matter to confine her again. As it fell to my lot always to milk the "kicker," as she was called, I resolved to resort to another method. I accordingly commenced by being mild, (although it was a pretty hard matter;) but the result was, I brought the cow back to be quite a gentle milker; thus proving to a demonstration that kindness to animals will succeed when other means would fail; and I have ever aimed, since then, to be kind to dumb beasts, believing it the only and sure way of retaining the good will and mastery over them.

SMITHFIELD, R. I., May, 1849.

A. TODD.

For the New England Farmer.

PROFITS OF KEEPING HENS.

MR. EDITOR: I have lately had related to me an account of an experiment in the business of keeping hens, which seems worthy of record, and which helps to sustain the position taken by some of our shrewd-

est farmers, that *hens are the most profitable animals which are kept*. Colonel Joel Briggs, now of this town, in the year 1844 lived in Dedham, at the Low Plain Station, on the Providence Railroad. As stock in the business of poultry-keeping, he possessed twelve hens and one protector.

These fowls he fed bountifully, giving them all they would eat; and a good return did they make for the expense of board. The items are from an account carefully kept at the time. The hens began laying at the opening of the year; and the number of eggs laid in the respective months was as follows: In January, thirty; February, forty-seven; March, two hundred and fifteen; April, two hundred and eighty-one; May, two hundred and thirteen; June, one hundred and four; July, one hundred and fifteen; August, one hundred and sixty; September, one hundred and ninety-six; October, one hundred and nine; November, seventy-one; December, none. Total, fifteen hundred and forty-one.

In the course of the season, nine of the hens were set on one hundred and forty-four eggs. Of the chickens hatched, fifty-six were raised to maturity. A fair proportion, both of the eggs produced and of the chickens raised, were consumed in the family; but for these, of course, the hens should be credited, just as if they had been sold. The chickens sold were taken at an average of twenty-eight and two sevenths apiece; the eggs, at eighteen cents a dozen. Almost the sole expense of keeping was for sixteen and two third bushels of corn and other grain, at an estimated average cost of sixty cents a bushel. The account with the gallinacean family stands as follows:—

Eggs produced, 1541; deduct 144 for setting—1397, sold and salable, at eighteen cents per dozen,	\$20 96
Fifty-six chickens raised, worth twenty-eight and two seventh cents,	15 84
	36 80
Deduct expense of keeping, sixteen and two third bushels of grain, at sixty cents,	10 00
Leaving a net profit of	\$26 80

This shows a profit of two dollars and twenty-five cents nearly, to each hen; and as one of the number "took sick and died" in the course of the season, the *pro rata* profit on the rest is in fact greater than that stated. The place of keeping was nowise particularly favorable, being at the "switch," or turnout on the railroad; and an unfortunate chicken, big enough for the table, was killed under the wheels of the ponderous steam Juggernaut.

SILAS LIVERMORE.

NEW BEDFORD, May 11, 1849.

EDITORIAL REMARKS.—We have many accounts of the profits in keeping poultry; but it is uncommon to find so large profit as here represented, which shows excellent success. There is not the least doubt that, with judicious management, poultry affords more profit on the capital invested, and the food expended, than any other stock kept on the farm. Much time is necessary in taking proper care of poultry; and in some cases this is a mere pastime for children and others, who have little else to do, and they amuse and instruct themselves in the care of beautiful birds, that serve to enliven the scene.

If a person has much to do, and must take time that is needed in other pursuits to attend to poultry, then the time of attendance will be an important item, that will considerably reduce the profit.

As we have numerous accounts of a great profit in

poultry on a small scale, some persons have tried it on a large scale, hoping to make it a good and principal business. But generally such plans have proved to be failures in this country, and frequently in part, if not wholly from injudicious management, as a large number of fowls have been crowded together, rendering them unproductive and producing disease. In England, some persons make a good business in keeping poultry, whether from superior management to that usually practised in this country, or from being content with less gain, we cannot say.

—◆—
For the *New England Farmer*.

CULTIVATION OF INDIAN CORN.

MR. EDITOR: I have read with much interest the account of Mr. Bridge, of Pomfret, Vt., on the culture of an acre of Indian corn, that yielded more than one hundred bushels; and, although I have often heard doubts expressed by practical cultivators of there being really one hundred bushels of sound corn grown on an acre, still there is a reasonableness in his statement that satisfies my mind of its correctness. In this statement are several facts worthy of special notice.

1. The advantageous position of the land.
2. The high state of cultivation it has been under for many years.
3. The depth to which it was ploughed — ten inches at least.
4. The quantity of manure applied being not less than fifty loads to the acre.
5. The number of hills on the ground, being about fifty per-cent. more than is usual in planting corn.
6. The thinning out the stock to three in a hill.
7. The kind of corn raised being the twelve-rowed, or that which is most productive.

If this analysis of the communication shall induce any one to re-peruse it, and endeavor to imitate the cultivation, and it shall be found, from actual experiment, that the lands of Massachusetts can produce crops equal to those of the fertile fields of the Green Mountains, then the purpose of the writer will be attained.

Truly yours, P.

DANVERS, May 28, 1849.

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For the *New England Farmer*.

CLEARING LAND.

MR. EDITOR: What is the best method to eradicate the stumps and roots of pine-trees? Is there any particular season when cutting would be more favorable than others? And what is the best way to uproot or kill barberry bushes? Also, please inform me the best mode of splitting large rocks, or tumblers, whether by fire or blasting; and oblige,

Yours, &c. L.

EDITORIAL REMARKS. — Pine stumps will generally remain sound for a long time in the ground. They are usually extracted by machines, which is a rather expensive way, as great power is necessary. Stumps may be taken up by using a large lever, some twenty or thirty feet long, according to the power to be applied. Fasten a chain or rope to the top of the lever, and then erect it by the side of the stump, placing the but-end between two roots, if convenient; then put a very stout chain around the lever, just

above the stump, and fasten it to a root on the opposite side. Make a notch in the stump, and let the chain lay in it, to keep the lever in an upright position. Have a long rope from the top of the lever, that the team may be out of danger, and have greater power, from bringing the line of draught nearer a horizontal. If the power is not sufficient, cut off some of the roots opposite the lever. A lever may also be applied to a root, to aid the team.

A cheap mode of destroying stumps is to excavate beneath them, and if they are not dry, expose the roots a while during the hot season. Then make a fire under them, and lay turf around, confining the fire in a manner similar to a coal-pit. In this way the fire will be kept down, and after a few days of slow combustion, the stump and much of the roots will be consumed.

Those trees that produce sprouts should be cut in August to prevent sprouts, and of course a more ready decay of the stump and roots, as the sprouts tend to keep them alive. Pine-trees do not produce sprouts. When the trees are not felled, the roots and stumps may be taken out much cheaper with the tree. Remove the earth around the stump, and cut some roots on one side, if necessary. Then fasten a rope to the tree, up high, that the power may be great, and hitch to the rope sufficient team to pull up the tree. This gives a great power, sufficient to take up the largest trees in the forest, if they have a good height.

Solid and very hard rocks, that are much exposed, may be split by first heating them very hot, and then applying water suddenly. But in many cases, there are ledges that are full of seams, or of a soft stone that is but little affected by fire; or the situation of the rock may be such that fire cannot be applied to it conveniently. Rocks split by fire are irregular and rough, and of but little use, excepting for coarse wall or for filling up cavities. Generally, blasting by powder is the most expeditious.

When there is a chance for ploughing, barberry bushes may be most easily destroyed by this operation. If stones, rocks, or other impediments are in the way, dig out the roots with a bog hoe or iron bar.

MORGAN HORSES.

MR. COLE: "Morgan Messenger," the colt of "Lady Messenger," is owned by General S. M. Borroughs, of Medina, N. Y., which could not be bought now for one thousand dollars, so I have been informed. He makes a large gay animal, and very swift on foot. But the dam was never "owned by said Borroughs," as stated in the Farmer of May 12, but is in the possession of Charles L. Smith, Esq., of Bristol, Vermont, who is celebrated for the breeding of fine animals.

S. W. JEWETT.

WEYBRIDGE, VT., May, 1849.

HOW TO GET RICH.

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Almost every body wants this information. It is comprised in this advice: Be economical; be industrious; attend to your own business; never take great hazards; don't be in a hurry for wealth; never do business solely for the sake of doing it; and do not love money extravagantly.

For the New England Farmer.

ON "LARGE AND SMALL POTATOES FOR SEED."

MR. EDITOR: Your correspondent, "Down East," "hopes definite experiments will be made." He asks, to close, "Will the extra produce of large potatoes be enough more to pay for the difference in the seed?" The editor justly notices "a very important subject, which is the general effect on the crop, as to improvement or degeneracy." With this expressed solicitude in view, permit me to say, I have made "definite" and accurate experiments, as I hope others will do, and report, not from estimation and recollection, but from weight and measure of seed and soil, as a matter of record, both at planting and harvest. From such documents, made year after year, and also others respecting renewing from the balls, I can give the items, if called for in future; from the results of which I will now offer some of my convictions.

1. Large potatoes give more vigorous shoots: both top and root are in advance of small ones, and continue decidedly so; hence, for early table use, are much to be preferred.

2. By planting them whole, they are crowded, and, unless the soil is very light, they cannot expand; and if not very rich, the feeble shoots, from the stem end especially, will, for want of nourishment and room, produce small ones.

3. Cutting them in halves gives more room, but weak shoots with strong ones, (like a titman pig in a litter,) must take what they can get which is not always enough; of course, inequality in size.

4. Cut from a large potato the largest eyes, and plant three or four in a hill, and we get more from the same weight of seed than in any other way, of large and equal sized tubers; but not as early as when the two ends are cut off, leaving the body to nourish three or four central eyes.

5. There is a difference between a potato small because it was from a feeble shoot, and one small from want of room or time to grow. The latter may do well for seed, but, having nearly as many eyes as a large one, but less vigorous, requires a light soil, that is well pulverized, to expand in, and rich, to furnish nourishment for so many shoots. The hills may be near, but should have only one in each, and delicate culture.

6. By cutting off from one third to one half of the stem end, (the best to eat,) we have the finest eyes to plant in the other end, which may be cut again if large, and give a crop nearly equal to the whole. This is economy, and no deterioration.

7. By carefully selecting, in the field, at harvest, for seed, hills in which all are large and fair, we are sure of improving our crop, both in quantity and quality. And as surely will the crop degenerate if we use and sell the best, and plant the refuse.

8. When seed is dear, and likely to continue so, it is still more desirable to be particular and plant seed that will return the most and the best.

Yours truly,

BENJAMIN WILLARD.

WILBRAHAM, May 31, 1849.

WHITE RIVER WOOL DEPOT.

A friend has furnished the following circular, which we publish with pleasure, believing that such enterprises are of general utility, giving concert of action, and tending to a uniformity of prices, and giving a permanency and constant encouragement to the business of wool-growing. As it has been man-

aged, some have through necessity, or for want of information, sold their wool at ruinous prices, and abandoned the business.

The location of this depot is very favorable, being in the heart of an extensive wool-growing region, and at the meeting of the Northern and Passumpsic Railroads with the Central, affording excellent facilities for travel and transportation.

Our friend remarks that Mr. Willard has had extensive experience in the wool business, and is well qualified to manage such an establishment. Excellent success has attended the few wool depots already in operation, and the result has been highly satisfactory to those growers who have sold their wool through such agencies. We copy as follows:—

The encouragement for the directors to open this depot, (with pledges to the amount of about 70,000 pounds,) is such that they have seen fit to make all suitable arrangements to open the same, for the reception of all grades of wool, on the 25th of June next, at the storehouse of George Lyman, near the mouth of White River, with a desire that sufficient patronage will be given to the enterprise, to make this a permanent location for future operations. All those who anticipate carrying their wool to this establishment, will do well to observe the following directions: *Wash your sheep clean*; which is more readily done, by wetting or soaking the flock before washing, or wash them soon after a rain. After washing, the sheep should be put into a clean pasture. After this, if the weather is suitable, shearing should be done in four or six days. Care should be taken to keep the fleeces clean, and do them up in good shape, exposing the finest portion of the fleece as much as convenient. Use the common sheep twine, passing it from two to four times round the fleece, drawing the strings sufficiently tight to keep it together.

If you have spring tags, it will be deemed just to put an equal quantity into each fleece, after cleansing the same.

Keep out all unwashed tags and pulled wool. Nothing but merchantable wool should be put into the fleece. It is desirable all wool should be deposited by the 10th of August. The following rules will be strictly observed at the depot:—

Each depositor, when he brings his wool, will receive a certificate of deposit, stating the number of fleeces, weight, &c.; and as soon as convenient, he will have a statement furnished him of the grading and condition of the same. All who wish can have liberal advances, by allowing six per cent. for the same till the sale of his wool.

From three to ten fleeces will be opened from each lot, to ascertain the condition.

The fleeces will be thrown into different sorts, by an experienced wool-sorter, according to style and quality. He will have no knowledge of the ownership of any lot of wool, so that all partiality will be avoided.

A discrimination will be made between wool in good and bad condition.

All who desire can have their wool kept separate. Sales will be made invariably for cash.

The charges will be for receiving, storing, sorting, and selling, one cent per pound, and about twenty-five cents on one hundred dollars for insurance, providing it does not exceed three months.

Arrangements have been made with manufacturers, using the different grades of wool, to purchase the various sorts, at their fair market value, as soon as the directors and agent may see fit to make a price upon the same.

Good and sufficient bonds have been furnished by

the agent, for his faithful discharge of duty. Arrangements have been made with the proprietors of the two toll bridges in this vicinity, to let all pass for half toll who are carrying their wool to this depot.

CLARK HOUGH, GEORGE DEWEY, GEO. W. CUTTIN, MERRIT FARNAM, JOHN PORTER, ALLEN HAZEN, NATHAN CUSHING, EBEN'R BRIDGE,	}	New Hampshire.
	}	Vermont.

AMMI WILLARD, *Agent.*

P. S. There are but two other establishments of this kind in the country. Both of these received last season 1,500,000 pounds of wool, and all has been sold at satisfactory prices.

WOODSTOCK, *May 24, 1849.*

AGRICULTURE IN MAINE.

In the late message of Governor Dana to the legislature of Maine, we find the following sensible remarks on the importance of agricultural education, and the propriety of exempting a suitable amount of the debtor's property from the power of the creditor, instead of specific articles. We trust that so valuable suggestions will be duly appreciated by the intelligent body to whose action they are submitted.

The products of agricultural labor are undoubtedly of greater value than the combined products of all other labor in the state; and yet that pursuit attracts less of general attention than any other. From its unobtrusiveness it has allowed itself to be nearly overlooked, although the great interest of the state. The farmer sows his seed, watches its springing and maturity, reaps his harvest, and enjoys its fruits in quiet and contentment, asking no protection or legislation. But his interests should not be neglected because he makes no clamor in the halls of legislation. I presume it would not be doubted, that the general application of science to agriculture throughout the state, would double our agricultural products, with but a slight increase of labor. Such an addition to the productions, resources, and wealth of the state, is an object worthy the highest solicitude, and should command your earnest consideration. But with our present means of education, little advance can be made towards its accomplishment. There is not in the state, and probably not in New England, an institution where a practical, scientific agricultural education can be obtained. Three-fourths of our population are farmers; three-fourths of the rising generation will be farmers; and yet there is no opportunity for one, of all this number, to obtain an education adapted to, and in aid of, his vocation. True, we have our high schools, academies, and colleges, — many of them liberally endowed by the state, — but they all fail to give him an appropriate education; for, instead of fitting him for his destined pursuit, and rendering it pleasing to him, his course of studies and the associations and influences around him, all tend to give him a distaste for it, and to invite to other professions and callings, where he will be far less useful to himself and the community. If, then, the object of education is to fit man for the duties of life, a large majority of our population have no opportunity for obtaining it.

In my annual message to the legislature of 1847, I suggested the establishment of an agricultural and teacher's seminary, under the direction of the board of education, and proposed that, when its finances would permit, the state should support, at that sem-

inary, a small given number of scholars from each county, to be selected by their respective boards of school committees, as a reward of merit and proficiency. The chief design of this feature of my suggestion, was to give a stimulus to the interest of both parents and children, in our public schools; but it would probably be attended with too much expense for the present condition of the treasury. An agricultural school, divested of this more expensive feature, as a model, and as a commencement of a system of agricultural schools, is an immediate want, and within our immediate means. The interest of the permanent school fund, which is still unappropriated, is more than sufficient for that purpose; and if, as I have already suggested, the proceeds of the reserved lands should be added to this fund, the interest of both combined would, besides sustaining such a school, furnish the means for increased facilities for the education of teachers, either by the establishment of normal schools, or by prolonging the sessions of our institutes.

The policy of exempting a portion of the property of the debtor from attachment, for the double purpose of enabling him to supply the necessities of himself and family, and of furnishing him with facilities wherewith he may ultimately relieve himself from his debts, has ever been recognized by our laws, and is both humane and wise. But I am convinced that the exemption of a fixed amount of property, of such description as the debtor might select, whether personal or real, instead of the list of specific articles now exempted, would be advantageous both to debtor and creditor; because each individual debtor could then retain the property best adapted to his circumstances, and calculated to afford the most aid in accomplishing the objects for which the exemption was made. Under the present law, it may often occur, that the property retained, although the amount may be large, is of little benefit to the debtor retaining it; whereas, if a much less value were secured to him, in precisely the property which his situation required, the ends of protection would be more nearly attained. But another important objection to our exemption of specific articles is, that no real estate is included. If the present exemption of personal property does not conflict with the rights of the creditor, the exemption of the same value, in either personal or real estate, surely could not; while, at the same time, it would be far more useful to the debtor. He is now allowed the products of a farm, tools, horses, and oxen to cultivate it, but no farm; thus encouraged to obtain the implements of husbandry, but forced to use them upon the farm of another; induced to assume the relation of a tenant, while the true interests, alike of the debtor, creditor, and the state, would invite him to become a freeholder.

TO ASCERTAIN THE WEIGHT OF LIVE CATTLE.

This is of the utmost utility to all those who are not experienced judges by eye. By the following directions the weight can be ascertained, within a mere trifle: Take a string, put it round the breast, stand square, just behind the shoulder blade; measure on a foot rule the feet and inches the animal is in circumference — this is called girth; then, with the string, measure from the bone of the tail which plumps the line with the hinder part of the buttock, direct the line along the back to the fore part of the shoulder blade, take the dimensions on the foot rule as before — which is the length; and work the figures in the following manner: Girth of the bullock, six feet four inches; length, five feet four inches — which, multiplied together, make thirty-one square superficial feet; and that multiplied by twenty-three

(the number of pounds allowed to each superficial foot of cattle measuring less than seven and more than five in girth) makes seven hundred and thirteen pounds. Where the animal measures less than nine and more than seven in girth, thirty-one is the pounds to each superficial foot. Again, suppose a pig, or any small beast, should measure two feet in girth, and two along the back, which multiplied together make four square feet; that multiplied by eleven, the number of pounds allowed each square foot of cattle measuring less than three feet in girth, makes forty-four pounds. Again, suppose a calf, a sheep, &c., should measure four feet six inches in girth, and three feet nine inches in length, which multiplied together makes fifteen and one fourth square feet; that multiplied by sixteen, the number of pounds allowed to all cattle measuring less than five feet, and more than three in girth, makes two hundred and sixty-five pounds. The dimensions of the girth and length of horned cattle, sheep, calves, or hogs, may be as exactly taken this way as it is at all necessary for any computation or any valuation of stock, and will answer exactly to the four quarters, sinking the offal, and which every man who can get a bit of chalk can easily perform. — *Chambers's Information for the People.*

BUCKWHEAT OR POLYGONUM FAGOPYRUM.

Buckwheat is said to be a native of Persia, and is usually sown on poor land, although, like other cultivated plants, it does best on a good soil with good culture. Its blossoms yield considerable food for bees, although the honey thus obtained is inferior to that made from clover. Buckwheat meal or flour is much used in some sections of the United States for making griddle cakes. The seeds of this plant contain fifty per cent. of starch, and one and one half per cent. of earthy matter. It is often sown and the crop ploughed in, to fertilize poor land. From one to two bushels of seed are put on.

BUCKWHEAT WITHOUT GRIT. — Did any person, who eats buckwheat cakes, ever have the good fortune to get any containing not a particle of grit? A method not generally known was lately stated to us by a practical farmer, who says that buckwheat raised in this way is entirely free from the difficulty.

The buckwheat is sown at the usual time; but before harrowing, a bushel of rye is sown with it to the acre: they both come up together, and the buckwheat, being much the most rapid in growth, soon obtains the ascendancy, the rye only forming a smooth, green carpet beneath, which completely prevents the dashing of the grit of the soil by rain upon the buckwheat, when it is cut, and otherwise keeps it clean. After the crop of buckwheat is removed, the rye obtains sufficient growth before winter, and the next season affords a good crop of itself. Thus the buckwheat is protected, and two crops obtained from a single seeding. — *Pennsylvania Cultivator.*

TO MAKE FARMING PROFITABLE.

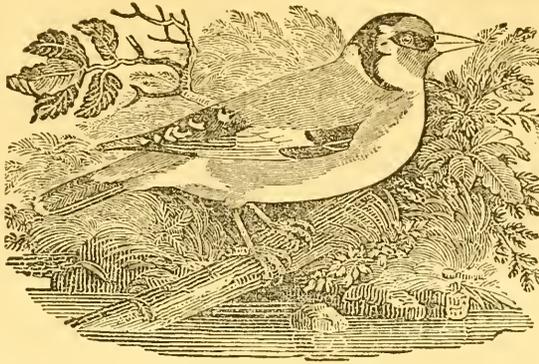
General Josiah Newhall, in his excellent address before the Essex Agricultural Society, last fall, shows the importance of energy and timely attention in order to make farming profitable. We make the following extract: —

Farming may be so conducted as to be made profitable, or merely to afford a living, or to run out the farm. Taking the land as it averages in the state, this depends more on the farmer than on the soil. The man who makes no provision for the rais-

ing of his crops, cannot reasonably expect any. Agriculture, like all other business, to be made profitable, must be conducted with some method as well as energy. What would be thought of the merchant, who should neglect to load his ships, and let them lie deteriorating at his wharf, or send them to sea half loaded or manned, and without funds for a return cargo; or the manufacturer, who should run his machinery without system or order, and let it stand still upon every trivial occasion, while the pay of his operatives was going on? Would not such a course bring irremediable ruin? And can the result be more favorable to the farmer, who, though possessing hundreds of acres of land upon which he is annually paying taxes, and who makes no adequate provision for the cultivation or improvement of which, with the exception of a few acres, and that cultivated in such a manner as not to afford a compensating return for the labor bestowed? Although the soil, in some parts of the county, is gravelly or sandy, still it may be made to produce rich harvests. The farmers have within their reach ample resources to convert their lands to a state of great fertility. The farmers of no section of the state are more highly favored in this respect. On the eastern border of the county, the broad Atlantic rolls in upon the beaches her fertilizing materials in great abundance. Upon the rocks, between high and low water, grow weeds, containing the elements of vegetable nutrition in a high degree. At some seasons of the year, a certain kind of fish may be taken along the shore, with seines, in great quantities, and be made valuable in the formation of compost, or in the direct application to the land. The bays and inlets along the coast abound in beds of muscle of great value; and in different sections of the county there are vast deposits of peat, amounting, in the aggregate, to many thousand acres. Providence seems to have made ample provision by these bogs for the fertilization of the soil for ages to come. While in tropical climates the decay of vegetable matter is complete, and becomes resolved into its original elements, in this temperate region the process is less rapid, and in certain situations abounding with water, the decomposing process is arrested, and peat accumulates. In this situation it abounds with acidity, and is inert when applied as the food of plants. Within a few years, peat lands were considered among the least valuable, having been sold from five to ten dollars an acre, while their intrinsic value is hundreds, nay, thousands of dollars for the purpose of manure; to say nothing of their value as an article of fuel, some of which is but little inferior to coal. This substance, to be rendered available in agriculture, should be dug in the autumn and exposed to the ameliorating influences of the atmosphere during the severity of the winter. Farmers having barn cellars (and none should be without) will find that by using this material largely under their stables, to absorb the liquid and mix with the solid deposits of their animals, they may double or triple the amount of their manure, and the quality will be far better than that not protected from the wasting influence of the elements. The whole may be well mixed, and suffered to ferment so far as to expel any remains of acidity; and the whole mass becomes equally valuable for all thin and gravelly soils as clear animal manure, and having a more permanent effect.

SANDY PLAINS.

Clay, ashes, decomposed or rotten manure, with clover, it is said, has proved to be the best means of improving sandy plain lands. Plaster is useful in situations where it will act. This can be ascertained by trial.



THE BIRDS.

It has been truly said that the birds are the cultivator's best friends. They not only enliven the scene of his labors with sweet music, and beautify it with their fine appearance, but render essential service by destroying legions of insects, which otherwise might increase, and destroy many crops, or prevent their production by destroying the tender plants.

Of all the enemies and disadvantages that the farmer encounters, none are so formidable as insects. Others he may conquer and manage, but these minute, often imperceptible, creatures devastate whole fields, in spite of all opposition.

The birds, in their industrial labors to procure food for themselves and offspring, are constantly destroying insects; and they are admirably adapted to this purpose, and will accomplish what man cannot. The millions of insects which they consume annually, and the thousands of millions which they prevent by their timely labors, are beyond calculation. Without their aid, many crops would be unprofitable, or a total failure, and we should find barren fields, instead of the lands that now smile with plenty, and gaunt famine might stalk over those countries now blessed with abundance.

Since the great utility of birds is well known to every one who reflects on the subject, how important that they be protected, and encouraged to be the familiar associates and assistants of the farmer and gardener! We should have laws throughout the country for their protection against the heartless sportsman, or cruel boys, who would kill the innocent and useful birds, or rob their nests. In some towns, it has been wisely ordained that no birds shall be killed or entrapped; and this subject is worthy the attention of every town.

Those wanton boys who trifle with the feelings and rights of birds by destroying them, robbing their nests, or confining their young, should consider what awful feelings would becloud their minds, should some stranger tear them from their happy home, and from their father, mother, brothers, sisters, and friends, and shut them up in the gloom of a prison. Birds have feelings as well as human beings, and He that made them for wise purposes will look with

displeasure on the wanton sport of the wicked boy who molests them.

Even those birds that are regarded by some as mischievous, are among the most useful. The crow devours immense numbers of worms. He seldom does injury excepting in pulling up a little corn in spring; and this may be prevented by feeding him. As he works for the farmer, he should occasionally share in his bounty, as well as the ox, the horse, or the dog.

The woodpecker is charged with injuring trees by pecking them full of holes; but he is invited to this business from the defection of the tree, and he labors to relieve it from the depredations of insects. He is as harmlessly and usefully employed as the man with his chisel and mallet, cutting the borers out of the tree.

CAULIFLOWERS.

I have been eating delicious cauliflowers all winter, thanks to your directions in the *Horticulturist*. I sowed seed for the winter crop about the middle of May, and when winter approached I lifted the plants in a damp day, with a little earth attached to the roots, and set them on the floor of a warm cellar, under one of my out-buildings. They were most of them not even showing the least signs of flowering when they were put in the cellar, and I confess I was a little incredulous as to their "coming to any thing" in their winter quarters. But they soon began to form blossom crowns, and I have cut the whitest and most delicious cauliflowers from these plants since last December that I have ever tasted. As this mode of treating cauliflowers is not generally known here, I have quite astonished my neighbors by the sight of such a fine winter vegetable in abundance. — *Horticulturist*.

WORTH TRYING FOR.

The London Athenæum says that the Belgium government has instituted a prize of five thousand francs, with a gold medal and one thousand francs respectively, the first for the best work on general agriculture, and the second for the best treatise on the disease of the potatoes. Foreigners are invited to compete, and manuscripts are to be sent to the Ministry for the Interior before the 1st of January in next year.

SHEEP HUSBANDRY.

So much attention is now turned to raising sheep in the west, and on the high lands at the south, where they can be wintered at a small expense, that the producers of wool in New England will, by and by, find more powerful competition from their own countrymen, than from foreign production.

But the farmers of New England, who can readily adapt themselves to circumstances, will find the raising of fat mutton and ordinary wool more profitable than fine wool. The numerous large cities, and the thousands of flourishing towns and villages, that are rapidly increasing or suddenly starting into existence, from the enterprise in the three great branches of industry, agriculture, manufactures, and commerce, will create a great demand for fine mutton, especially when people learn its superiority to other meats now used to a greater extent; and the numerous railroad and steamboat communications, and the use of ice, will afford advantages for bringing fresh lamb or mutton from every hill and dale in New England, or the animals may be transported to market, with economy, and without injury from the journey. There will be a gradual change. The west will produce fine wool, and the east fine mutton.

The following article from the Ohio Cultivator will interest many of our readers:—

THE PROSPECTS FOR SHEEP AND WOOL FOR 1849.

Thousands of sheep were killed, both east and west, in 1848, not as the result of an over-stock, but owing to discouragement under the current prices. The close of the last winter has raised the price of wool from seven to ten cents per pound. The consequence is, that many wish their dead sheep alive again; or wish to stock up with a new supply. From present appearances, wool is going to do well for several years to come. The reasons are these, for such an opinion:—

1. The tariff, if changed at all, will be so modified as to promote increased protection to our own manufactures. We shall have at least the protection of the tariff of 1842, and this is all that manufacturers ask.

2. The great and constantly increasing influx of foreigners, together with the natural increase of our own population, will call for a greater supply of manufactured goods, and of course create demand. Our population is increasing at the rate of two thousand a day; of course spindles will be increased to supply their wants. Nearly one million a year is now annually added to our numbers. Our flocks and our herds must be increased in proportion.

3. We are able to compete more and more successfully with some portions of the manufacturing districts of the old world. We are pushing our manufactures abroad and supplanting theirs.

4. Sheep and wool are successfully raised and improved, and no agricultural investment is found to require less labor or yield greater profits. To prove this, we have only to point to the fact that nearly every farmer, who for a series of years has steadily pursued the cultivation of sheep and wool, has become rich and independent—out of debt—houses and land around him, and abounding in comforts and enjoyments.

5. The grain-growing regions of Ohio are well adapted to sheep, and farmers are finding out that sheep are good consumers of their straw, chaff, corn

fodder, &c., much of which now goes to waste. The raising of wheat and wool go well together. What is left of wheat the sheep consume.

For these and many such reasons we believe that sheep and wool are looking ahead with good prospects—prospects never brighter. Sheep husbandry promises to be a healthy pursuit, paying satisfactory and suitably remunerating prices, with no vanishing and exploding inflation. We want nothing that will prove a disappointment. A sound business is the best. The profits of sheep husbandry are good enough. We want nothing better.

Example. A buys one hundred two-year-old ewes, after shearing, at one hundred dollars. He buys a buck, if he can find one, pure Merino, for twenty dollars. This is his investment. He pastures them on land worth twenty dollars per acre. He needs twenty acres for a year's feeding, summer and winter, and good land well stocked in grass will supply them. Well selected ewes will yield four pounds a head. With good management he may raise ninety lambs. The account will stand thus:—

<i>Capital Stock.</i>	
20 acres of land,	\$400
100 ewes,	100
	\$500
<i>Receipts.</i>	
400 pounds wool,	\$100
95 lambs, \$1 each,	95
	\$195
<i>Expenses.</i>	
Interest on capital,	\$30
Shearing, &c.,	10
Deaths, 2 per cent.,	2
Waste of flock, 10 per cent.,	10
	\$52

Which, deducted from above, leaves profits, \$143

This profit will be greatly diminished the second year. These lambs will not produce lambs, but simply wool; and they will not do it till two years old, and ought not till three years old. The greater the flock, the less the profit. But it will be more than twenty-five per cent. interest, under good management, at present prices of wool. Sheep that will not shear four pounds a head should not be purchased, and these should be crossed with the heavy shearing Merino. At the lowest calculation, no business exceeds that of wool-growing for profit.

A WESTERN WOOL-GROWER.

CLEVELAND, May 10, 1849.

EXPERIMENTS ON SALMON, SALMON FRY, AND EELS.

Strange as it seems, it would certainly appear from his [Mr. Young, manager of the duke of Sutherland's fisheries] observations, that a salmon may be kept for any length of time in a river without growing beyond the weight of two to four ounces, and he showed me specimens of salmon which, though of perfect form and condition, did not exceed that size; whereas, had they been allowed to reach the sea, they would at the same age have weighed from six to ten pounds each. The growth of salmon when in the sea is wonderful, it having been indisputably proved, that a salmon has grown eleven pounds six ounces during the short period of five weeks and two days; the fish, having been marked on its passage to the sea, was caught again in the same river, when ascending after an interval of that duration. Mr. Young told me also that his young family of salmon fry, which he hatched and kept confined in ponds connected with

the river always become perfectly tame, and the moment that he steps on the plank laid across the ponds for the purpose of feeding the fish from, they all flock round him, ready to dart at the food he puts in. In some of the ponds he had put a number of small eels, which soon grew in size, and became as tame and familiar as the young salmon. As the cold weather came on, the eels all disappeared, and he supposed that they had managed to escape, led by their instinct to take refuge in some deeper pools. However, one fine spring day, when he had long ceased to think of his slimy pets, he happened to pass over one of the planks, when he was delighted to see them all issue out from under the stones, asking for food, as if a day only, instead of many weeks, had passed since he last had fed them. Does not this most clearly prove that eels lie dormant during cold weather? — *Mr. St. John's Tour in Sutherlandshire.*

SPECIAL MANURES FOR RUTA-BAGA TURNIPS.

The result of the application of artificial manures in increasing the average produce of ground, cannot but be interesting to the agricultural community, even though these experiments should not have been conducted on American soil; and as every successful result leads to the extended use of special manures, and in most cases to more economical farming, I submit the following instance of what has been accomplished in raising turnips by their means.

Having been applied to, in the spring of 1844, by the steward of Lord Charlemont, to analyze a sample of soil from the estate lying two miles from Dublin, and to point out how the soil might be improved so as to grow Swedish (ruta-baga) turnips for a prize crop, I found, after examination, that the soil was in good condition, having been manured the summer previous, but that it was to a small extent destitute of potash salts and phosphate of lime to the degree that a heavy crop would require to find readily in the soil. On this account the following manure was recommended:—

56 pounds	pearlashes,
28	“ nitrate of soda,
14	“ coarse Epsom salts,
56	“ bone dust,

to be mixed in with ditch scourings, road sweepings, some burnt earth, and other refuse of the farm, so as to make the compost sufficiently bulky; the whole to be laid on a statute acre.

The object in using nitrate of soda was twofold. First, it supplied the small quantity of soda found in turnip ash, (ten pounds in every twenty tons,) and then, the form in which it is added, containing, as it does, nitrogen, (nitric acid,) rendered it peculiarly serviceable in pushing on the early growth of the turnip. The bone dust and pearlash were supplied because the crop required them; and the Epsom salts, because it was desired to put in wheat immediately after into the soil.

The result of this manure more than equalled expectation; their size was superior to any exhibited, and they received the first prize from the Royal Agricultural Society of Ireland, as well on that account as for the total yield, amounting to fifty-six tons the English acre.

The above-named manure cost about six dollars per acre; and whether we consider it in the way of economy, or of an addition having a wonderful effect in stimulating vegetation, it recommends itself strongly to notice. The wheat crop following was one third greater yield than usual, or more than a portion of the ground unmanured did yield. As this compost was applied to a soil in rather a good state, with the object of forcing a great growth,

there is no reason why the same special manure might not be applied to all soils intended for swedes, and where condition is not exhausted by neglect of manuring.

THOMAS ANTISELL.
Laboratory of the American Agricultural Association, March 7, 1849.
— *American Agriculturist.*

TRUE PRINCIPLES OF FEEDING.

If persons engaged in this pursuit would only use that sense which God has provided them with, and which is generally styled *common*, the business would be divested of a great deal of its mystery. Some people will say that it is much easier to find out what is wrong than to say what is right; and this is true to a certain degree; but regarding the cultivation of the land, there are certain inviolable principles which should always be kept in view; and these I will endeavor to enumerate. The first that strikes me is the clearing of the ground: it is absurd to think of trying to grow grain under trees in a wood, nor is it sufficient to take away a part of them, — I mean, of course, with the idea of perfection. For instance, suppose you have fifty trees on an acre; that is, about one to every three square rods; the soil capable of bearing fifty bushels of wheat, or one bushel to each tree; and suppose that you cut down forty-nine of them, you will only be able to grow forty-nine bushels, instead of fifty; the annual waste or cost of that tree being the value of one bushel of wheat, or whatever crop might have been on the three rods of ground which that tree monopolized. Therefore, if it is necessary to clear the land before you can grow grain, it is reasonable and self-evident that it should be entirely cleared, every fractional part you leave doing injury in its degree.

The next point to notice is the dryness or wetness of the soil: see if the stagnant water is sufficiently near the surface to do injury to the crops, even by capillary attraction, which, science tells us, will raise water four feet, and practice has shown that it must not be nearer; therefore, if the stagnant water be nearer than four feet, drain it to that depth. It is absurd to attempt to cultivate land against so powerful an enemy as water. Thirdly, we consider “the pulverization of the soil.” Ought it to be pulverized at all? To this question I think our common sense will give an answer in the affirmative, so that the plant may more easily expand its roots to seek for nourishment in the soil, which soil and which pulverization should extend as far as the roots of the plant; but it is common sense to think that five or six inches only is the distance that the roots of plants extend? I will not take advantage of a few facts that have been noticed of the immense depths that roots descend, but merely appeal to common sense, and ask whether it is not reasonable to suppose that the roots beneath extend as far as the plants above the soil; and, if so, ought not the soil to be pulverized to that extent, *viz.*, about four feet?

The first expense of this, I am aware, renders it almost impracticable; but this I cannot help. I cannot alter the true principles of nature. I must assert, with common sense, that the deeper you pulverize, the more you move in a right direction.

W. G. G.

— *Gard. Chronicle.*

Spare minutes are the gold dust of time; and Young was writing a true as well as a striking line, when he affirmed that “sands make the mountain, moments make the year.” Of all the portions of our life, the spare minutes are the most fruitful in good or evil. They are gaps through which temptations find the easiest access to the garden.

Domestic Department.

FEMALE EDUCATION: AMUSEMENTS. — The amount of time foolishly wasted by females is really deplorable: at an age, too, in which their exertions are so much needed. With due respect to your correspondent "Eva," I think single-handed manufacturing in families, though once an indispensable duty, would be poor economy of time and labor in our day, when superior fabrics may be produced by machinery, at much less cost, though, under some circumstances, an occasional buzz of the spinning wheel may be expedient. Our duties, however, are not diminished, but, on the contrary, increased by the improvements of the age in which we live. Woman's sphere is enlarged beyond the limits of the broad rim of the spinning wheel, and is still enlarging. While our duties and responsibilities increase, we are held accountable for much that our grandmothers never dreamed of.

"New occasions teach new duties;
Time makes olden good uncouth;
They must upward still and onward,
Who would keep abreast of truth."

The time is coming when domestic duties are expected to be performed upon scientific principles; and we are bound to employ every means in our power to make ourselves acquainted with the sciences pertaining to our domestic affairs. A knowledge of chemistry and dietetics, in a cook, is invaluable to a family. Information regarding the laws of health, and life, and mental philosophy, is absolutely necessary to the proper rearing of children. The suffering I have seen and experienced for want of knowledge, and the almost incredible advantage gained by the application of a few practical ideas, makes me very desirous for others, as well as myself, that we should have "more light."

I think, however, it is not proper that we should always be in performance of the sober duties of life. Nature does not bestow all her care on the sturdy oak and mountain pine, but adorns the landscape with an endless variety of fanciful colors and forms, enlivens the whole with music, and the frolicsome play of animated beings. Nor did she fail to implant in the human mind faculties harmonizing with the beauty, melody, and gayety of external nature, which find a legitimate sphere of action in ornamental horticulture, vocal and instrumental music, &c. An evening dance of an hour in a family, in which old and young, parents and children, may join, is at once conducive to the improvement of social feelings, and furnishes, at the same time, a wholesome relaxation from care, and greatly promotes longevity and health.

AMANDA.

— *Am. Agriculturist.*

KEEPING LEMONS FRESH. — I have been a house-keeper for some years, and never, till lately, have I been able to keep lemons fresh and juicy for any length of time. But with all my care, — now in this closet, now in that — now wrapped in paper, now packed in bran — now in a cool place, and now in a dry one, — they would dry up and become hard as wood. Of late, however, I have preserved them perfectly fresh three months in summer, by placing them in a closely-covered jar, or pot, kept in the ice-house.

Each lemon is wrapped up in paper, (perhaps they would do as well without,) but opened and wiped once in ten or twelve days, then covered again with dry paper, and put back into the jar, or earthen vessel, on the ice.

MOTHER HUBBARD.

OTSEGO Co., N. Y., Feb. 24, 1849.

— *Ibid.*

Boys' Department.

From the Illustrated Natural History.

DO ANIMALS REASON? The Alpine hares, says Pennant, in August begin to cut great quantities of soft, tender grass and other herbs, which they spread out to dry. This hay, about autumn, they collect into large heaps, and place either beneath the overhanging rocks, or round the trunks of trees, in conical heaps of various sizes, according to the number of the society that make them. They select the best of vegetables, and crop them when in the fullest vigor, which they make into the best and greenest hay, by the judicious manner in which they dry it. The common squirrel makes a nest of moss and dried leaves at the forks of a tree's branches, with two holes at opposite sides, and, as the wind varies, shuts the hole towards it. It lays up magazines of nuts, acorns, fruit, and berries for winter, never touching them till wanted. The field-man collects large stores, &c., in the same manner; the German harvester makes large chambers for grain, beans, and peas, each in a separate cell, sometimes a hundred pounds weight in the whole. The tuition which quadrupeds are capable of receiving, discovers a lower degree of that improbability which distinguishes our superior race, which, as far as it extends, resembles ours, although at the same time it marks its specific difference by its unvarying limitation. Blumenbach's ape would manage wood for the stove, and put it in with as much judgment and economy as a servant. He was often at the college, and used to examine the pupils' specimens with amusing imitation and grimace. One day he found a work on insects on the table, which he studied with great gravity; but a person, on entering the room an hour afterwards, found that the ape had, with great dexterity, pinched out all the beetles of the large plates, and eaten them, mistaking the pictures for real insects. This was an unlucky, but not a foolish action. Vosmaer had an orang which was taught to eat with a spoon and fork, and picked out his strawberries one by one from a plate. Getting loose one day, it uncorked a bottle of Malaga wine, drank it off, and put the bottle in its place. Seeing others open its chain padlock with a key, it put a bit of stick into the key-hole, and turned it about in all directions to unlock it itself. A black sow was taught to find game, and to bark and stand nearly as well as a pointer. When very young she became attached to some pointed puppies, and the keeper resorted to try her. He gave her some pudding of barley-meal as her reward, and threw stones at her when she did wrong. By this mode he soon taught her what he wished. As soon as the game she pointed rose, she always returned for her reward. The quadruped animals, of their own will and nature, and from in-born instincts, do actions which require knowledge, reasoning, and judgment in mankind. Reindeer follow a leader which they implicitly obey; antelopes run in a regular file, led by an older one. Elephants make their journeys on this plan. Many animals are found to make defensive arrangements. A Cape baboon having taken off some cloths from the barracks, Lieutenant Shipp formed a party to recover them. "With twenty men, I made a circuit to cut them off from the caverns to which they always fled for shelter. They observed my movements, and detaching about fifty to guard the entrance, the others kept their post. We could see them collecting large stones and other missiles. One old gray-headed one, who had often paid us a visit at the barracks, was seen distributing his orders as if a general. We rushed on to the attack, when, on a scream from him, they rolled enormous stones upon us, so that we were forced to give up the contest." When

lions scent the approach of wolves, the herd throw themselves into the form of a circle, placing the weakest in the middle and the strongest outside, and thus present an impenetrable forest of horns. The black bear's method of fishing is as dexterous as any schoolboy's could be. Setting on his hind paws on the bank of a river or lake, he continues so motionless that he might be mistaken for the burnt stump of a tree. He has sometimes deceived even the practised eye of an Indian. With incredible celerity, he seizes with his right paw the fish that pass by him. He seems to know that morning and evening are the time for fishing. The following is Mad'lle De Laistre's account of her weasel. "It plays with my fingers like a kitten, jumps on my head and neck, and if I present my hands at the distance of three feet, it jumps into them without ever missing. But it is impossible to open a drawer, or a box, or even to look at a paper, but he will look at it also." Building skill appears in the beaver's construction as in any human fabrication of a cottage. Foreseeing caution is shown by many animals by their placing sentinels to watch and give alarm of danger. The bobae, which inhabits the dry and sunny places of the mountains, go in search of food in the morning and middle of the day, placing a sentinel to give warning of approaching danger. The mountain marmots place sentinels upon a rock while the rest make hay. If the sentinel sees a man, an eagle, or a dog, he alarms his companions by a loud whistle, and is the last to enter his hole. Wild asses, llamas, Siberian horses, and antelopes place sentinels. The sheep on the Welsh mountains feed in companies, and one is set as sentinel. If this sees any one advancing, it looks at him till he comes within eighty or one hundred yards; and if he still approaches, he alarms his comrades by a loud whistle, two or three times repeated, and all scamper off to the steepest parts. The Alpine marmots lodge together in subterranean apartments, and their labor for collecting materials for these is carried on in common. Some eat the finest herbage, and others collect it. To transport this, one lies down on his back, and extending his limbs for that purpose, allows himself to be loaded. Others trail him, thus loaded, by his tail to the place. All the instances which occur, in these classes of beings, of coöperating action for some common end, show the intention and desire to unite their efforts for that purpose, and, therefore, a mind that designs, perceives, comprehends, wills, operates, to produce it. This quality is shown by the rat leading a blind one by a straw which he puts into his companion's mouth. The migrating squirrels, when they come to a river which they wish to cross, draw a piece of birch bark to the edge of the water, mount on it, abandon themselves to the waves, raising their tails to catch the wind. The Cayenne opossum shows it; when it cannot reach the crab, upon which it lives, with its paw, it thrusts in its long, prehensile tail, to hook them out. The honey weasel shows it. Towards sunset he issues from his hole. Near this he sits upright, and holds one of his paws before his eyes, in order to modify the rays of the sun. When he sees the bees he is looking for, he knows they are going home, and he takes care to keep in the same direction, in order to find them. When Messrs. Condamnie and Bouger were measuring the length of a degree in Peru, some large monkeys were admitted into their rooms, during the time they were making their observations on the mountains. These animals, of their own accord, went through a series of imitations of their actions. They planted the signals, ran to the pendulum, and then to the table, as if to commit their remarks to paper. They occasionally pointed the telescope to the skies, as if to survey the stars. It is related of an orang that belonged to Mr. Grant, that, after a lady had

given him cold water instead of tea for several times, he showed great vexation at it, and, to know whether it was so, put in his finger. Observing this, she gave him hot water, which scalded him. After that, he always put in a spoon or a piece of wood first, and touched the spoon. This action was very like human reflection. — *Valley Farmer.*

Health.

THE LAWS OF HEALTH. — Let us learn from prize-fighters. In the regimen that the prize-fighters submit themselves to, we may see the secret of acquiring the greatest strength and power of endurance. It is to be strictly temperate in all things; to avoid all debilitating stimulants, such as alcoholic drinks, tea, coffee, tobacco, &c.; to rise early; to take abundance of exercise in the open air; to bathe often, and observe the most rigid system of cleanliness, and abstain from all licentious practices. Those noted for pedestrian feats subject themselves to the same regimen. If it may be done from such ignoble motives, how much easier should it be to practise the same system for the greatest of blessings — health! — *Philadelphia Ledger.*

INJURY FROM BLEEDING. — The too free use of the lancet, which Dr. Reid called a "minute instrument of mighty mischief," is thus condensed by Dr. Brigham in his report of the Utica Lunatic Asylum to the New York legislature: —

"Many of the patients sent to this institution have been injured by too much bleeding and depletion before they were committed to our care. Some, we think, have been rendered incurable by this treatment; and we cannot forbear remarking, that in our opinion the work of Dr. Rush on the "Diseases of the Mind," in which directions are given to bleed copiously in maniacal excitement, has done much harm, and we fear is still exercising a bad influence; and we hope no future edition will be issued without notes appended to correct the errors into which the distinguished author has fallen for want of the numerous facts which have been furnished since his time, and which enable us to see the errors of our predecessors."

Mechanics' Department, Arts, &c.

PRESERVATION OF TIMBER FOR SLEEPERS. — Messrs. Hutin and Boutigny have obtained a patent in France for the preservation of wood intended for railway sleepers; the process of which depends on filling the pores at each end with a bituminous cement, after the ends have been previously charred. The process is thus described: "Immerse the ends of a piece of wood in some liquid carburetted hydrogen, such, for instance, as the oil of schist, which penetrates quickly some distance into the wood. 2. Set this carburetted hydrogen on fire, and at the moment the flame has burnt out, plunge the wood, to the height of a few inches, into a hot mixture of pitch, tar, and shellac, which will be slightly drawn up between the fibres, and form, at each extremity of the wood, a kind of hermetical seal, unalterable by moisture and air. 3. Coat the wood with tar over its whole surface by the ordinary methods." A process nearly similar was not long since communicated to the Paris Academy of Sciences, by M. Gemmi. In his plan, tar is used for the purpose of filling the pores of the wood, without the addition

of any substances. He encloses the wood in a cylinder, wherein it is desiccated by high pressure steam. A vacuum is then produced, and additional force is given to the tar in its penetration of the fibres of the wood by a force pump. — *Selected.*

GUTTA PERCHA. — This wonderful article is just now engaging the public attention; as well it may, for it will be used to a far greater extent than India rubber is. The tree is found in great abundance at Singapore and its vicinity. Dense forests of it are found at the southern extremity of the Malayan peninsula. The tree is called *niato* by the Sarawak people, but they are not acquainted with the properties of the sap; it attains to considerable size, even as large as six feet in diameter; is plentiful in Sarawak, and most probably all over the island of Borneo. The tree is stated to be one of the largest in the forest in which it is found. The timber is too loose and open for building purposes; but the tree bears a fruit which yields a concrete oil, used for food.

Gutta percha is contained in the sap and milky juice, which quickly coagulates on exposure to the air; from twenty to thirty pounds being the average produce of one tree. For collecting the sap, the trees are felled, barked, and left dry and useless; so great is the demand for the gutta, the importation of which already reaches many hundred tons annually. Hence the forests will soon be cleared of the gutta trees; whereas it is believed that a constant and moderate supply might be secured by incisions, as in the case of caoutchouc.

The gutta is received in scraps, or in rolls of thin layers. It is first freed from impurities by deviling, or kneading in hot water, when it is left soft and plastic, and of a whitish gray color.

When thus prepared, the gutta has many curious properties. Below the temperature of fifty degrees, it is as hard as wood; but it will soon receive an indentation from the fingers. When softened in hot water, it may be easily cut and moulded; and it will harden to its former rigidity; and it may be softened and hardened any number of times without injury to the material. Unlike caoutchouc, it has little elasticity; but it has such tenacity, that a slip, one eighth of an inch substance, sustained forty-two pounds weight, and only broke with a pressure of fifty-six pounds. When drawn out, it remains without contracting.

In solution, gutta is applied, like caoutchouc, for water-proofing cloth. It is likewise used for numerous purposes for which leather is used; in mastics and cements, &c. In short, it promises to become as important an article of commerce as caoutchouc itself.

The name is a pure Malayan one; *gutta* meaning the gum or concrete juice of a plant, and *percha* the particular tree from which this is procured. The *ch* is not pronounced hard, like a *k*, but like the *ch* in the English name of the fish *perch*. It has been suggested to Dr. Montgomery, that the gutta percha would be found useful in stopping decayed teeth. — *Valley Farmer.*

THE CURCULIO.

At the regular monthly meeting of the St. Louis Horticultural Society, held on the 7th ult., the curculio was the subject of some interesting remarks; an abstract of which we publish from the minutes. We hope the worthy president will persevere in his experiments until he shall have discovered a specific for this most serious hinderance to the cultivation of fruit.

The president stated that his attention had been called to the various recommendations of remedies or preventives of the ravages of the curculio, one of the

most nefarious pests of the orchard in that part of the country. This insect invariably takes our entire crop of apricots, nectarines, and plums, and injures the cherries, and even peaches. He had determined to try every practicable proposed remedy of which he could avail himself the present season. The following were among those suggested: —

1. Horse stable manure. This was believed to be ineffectual.

2. Spreading sheets under the trees, and tapping the body and branches with a mallet, the insects will fall into the sheets, and may be caught and killed. This is believed to be a perfectly effectual, though laborious practice: it must be pursued every morning for two or three weeks from the time the trees cast their flowers. He presented a vial containing sixty-one of the insects, which he caught from three apricot trees on the morning of the 5th of April, the young apricots being nearly of the size of peas.

3. Placing a lighted candle under the tree, for two or three hours in the evening, in a tub or box whitewashed inside, and having at the bottom an inch or two of water.

4. Placing old iron hoops, or pieces of iron, in the branches of the tree. He had seen at his mother's residence, last fall, a Green Gage tree having an iron hoop entwined among its branches, and from which a crop of fruit was always obtained, whilst the fruit of other plum-trees near by, without the iron, was destroyed. Dr. S. had mentioned to him facts in connection with the subject, which led him to infer that some potent effect was attributable to the iron: it may be worthy of a trial.

5. The insects may be fenced out by a tight board fence eight to ten feet high. A gentleman on Long Island succeeds perfectly with his, but he also paves the ground and plants his trees in dwarf, six feet apart.

6. Placing a coat of salt under the trees. This is believed to be ineffectual, as he had partly tried it, but without success.

7. Covering the ground under the trees with clay. This he had tried, and it did no good.

8. Hanging bottles of sweetened water in the trees.

6. Smoking the trees with the fumes of burnt sulphur.

10. Washing the trees, and even the fruit with the strongest decoction of tobacco and whale oil soapsuds will have no effect.

11. Swine and poultry, running daily among the trees, during the fruit season, as a permanent annual practice, will ultimately drive away or destroy the insect. The poultry, however, are not alone sufficient. Swine are the best exterminators, by destroying the larvæ of the insect in the fruit as it falls. The insect will avoid places unfavorable to the entrance of its young into the ground.

Captain Bissell said he had tried horse manure and salt without any effect. He was inclined to try the swine.

General Milburn said that a Mr. Price, of this county, kept off the insects by tying a band of sheep's wool around his plum-trees.

Mr. Turner said that a withe around the tree, kept moist with tar, had proved ineffectual with him.

Mr. Clark said that the insect would not attack the fruit upon a tree standing in a frequented walk.

— *Valley Farmer.*

TO SHAKE OFF TROUBLE.

Set about doing good to somebody; put on your hat, and go and visit the sick and the poor; inquire into their wants and administer unto them; seek out the desolate and oppressed, and tell them of the consolations of religion. I have often tried this method, and have always found it the best medicine for a heavy heart. — *Howard.*

DISSOLVING BONES BY STEAM.

A statement has lately been made to the Highland Agricultural Society, in relation to pulverizing bones by steam. It was stated that bones of any size could be reduced to a soft mass by this agency alone. A small boiler, with a steaming vessel connected with it, capable of standing a pressure of twenty-five or thirty pounds to the square inch, was all that was required. If the vessel was filled with bones, and subjected to the action of steam above the level of the boiler (as they will not dissolve if covered with water,) at twenty-five pounds pressure for a few hours, they will become quite dissolved — thus saving all the expense of grinding, and the sulphuric acid commonly used, which amounted to double the price of the rough bones. All the bones were so much softened, that the largest pieces found could be easily crushed fine by pressure in the hand. Dr. Anderson, the chemist of the society, thought the steaming would be cheaper than grinding. Professor Traill thought the steamed bones would be preferable to those dissolved with sulphuric acid, because, when the acid was added to bones, there was a destruction, in part at least, of the animal matter. The gelatine, which was of itself a valuable manure, would be saved by the steaming process. — *The Cultivator*.

THE GLANDERS.

MESSRS. EDITORS: While writing, I will mention a fact for your veterinary department. More than thirty years since, the glanders, of the most virulent kind, was amongst the horses of the neighborhood in which my father lived. Great numbers died off. His horse was taken, and under the belief that he also would die, my father commenced an experiment on him with a strong decoction of tobacco juice, given internally. In a short time, the horse broke out all over his body in sores. These cured up in a month or so, and the horse was sound, soon fatted, and was, as long as I knew him afterwards, a sound and healthy animal. This was the only horse in all the neighborhood that recovered. Some farmers in this vicinity, noted for fine, sleek horses, give occasionally Scotch snuff to their horses.

J. B. COOK.

— *Albany Cultivator*.

BEES AND MOTHS.

In a late number of the "Newspaper," when treating on the "Enemies of the Bee," I promised that I would relate the *modus operandi* by which bees are removed from the hive when attacked by that great death's-head monster, the moth. I also requested information on this point. Not having received any, I have deemed it proper that I should continue the explanation.

As soon as it is ascertained with certainty that the moth has commenced its foul work, the apiarian should procure a barrel or tub of sufficient size to completely cover the hive; fill the tub with water, then remove the hive from its place, bore a few holes in the top of the hive, place another empty hive on the top of the one from which the bees are to be taken, then gently lift the hives, and place the mouth of the lower one in the tub of water, press them down gradually, and the bees, to escape being drowned, will crawl up to the top of the hive, and from that into the other. In this manner may both bees and honey be preserved without doing the least injury to either. Another method is, to remove the hive to a dark room, a window of which should be left open; lay it gently on its side, the mouth facing

the window: when the sun rises, and heats the air sufficiently, they will soon leave the hive, and betake themselves to the apiary. They should be removed quite early in the morning, when the bees are yet stiff with cold, in order to prevent the *ecstatic pleasure* of being pierced by their little darts.

Many other, probably much better, methods of transferring bees from hive to hive, might be practised with equal safety to the bees. Some remove them by placing a narcotic or stupefying fume at the mouth of the hive: this will so sicken the bees, that they will soon drop down out of the hives. But I cannot persuade myself but that this would be injurious to the health of the bees. Who, after taking sufficient alcoholic fume to make him drop down, does not feel the effects of it?

The ways above stated may prove beneficial in taking out honey, &c. Certainly, in this enlightened age, this age of improvement, no one will resort to that cruel and barbarous mode of destroying the whole swarm in order to get a few pounds of honey. No, never inflict such a cruelty on such a useful insect — one that even teaches man a lesson! The days of fire and brimstone have long since passed away, and other things of more utility are invented to supply their place. Then why not use them? Then why, in cold blood, put to death myriads of these useful insects annually? It is enough that they should suffer from the attacks of their numerous enemies, save man.

S. W. R.

DARLINGTON, BEAVER CO., Pa., 1849.

— *Philadelphia Dollar Newspaper*.

REMARKS BY ED. N. E. FARMER. — We have smoked bees a few minutes with the fumes from the slow combustion of old leather, and they have become dormant, so that we could transfer them from one hive to another, or dispose of them as we pleased; and in a short time they revived, and were apparently as well as ever; and their future labors were an evidence that they not only received no essential injury from their short sleep, but that they had renewed energy from changing their old hive for a new one.

The smoke should be conducted into the hive laterally, so as to have no fire under the hive, as bees might fall down into it, as they become stupid.

WHAT OUR FINE FRUITS HAVE SPRUNG FROM.

The peach originally was a poisonous almond. Its flesh parts were then used to poison arrows, and was for this purpose introduced into Persia. The translating and cultivation, however, not only removed its poisonous qualities, but produced the delicious fruit we now enjoy.

The nectarine and apricot are but natural hybridation between the peach and plum.

The cherry was originally a berry-like fruit, and cultivation has given each berry a separate stem, and improves its quality. The common mazard is the original of most of the present kind of cherries.

The common wild pear is even inferior to the choke pear; but still, by cultivation, it has come to rank among our finest fruits.

The cabbage originally came from Germany, and is nothing more than the common sea-kale. Its cultivation has produced the present cabbage, and its different acclimating the different kinds; while its hybridation with other similar plants has produced the cauliflower.

This shows the benefit cultivation has effected: in the mind of man it is infinitely greater. — *American Agriculturist*.

NOTICE OF PUBLICATIONS.

CREDITOR AND DEBTOR'S ASSISTANT. By I. R. Butts, 22 School Street. — Mr. Butts has published a series of little works, which are sold at the low price of twenty-five cents each, on the most important affairs in business. These works have had an immense sale throughout the country, and are frequently the means of saving dollars in advice, and hundreds of dollars in litigation. The work now before us is among the best of these excellent assistants. It contains the laws, rules, decisions, &c., on the Evidences of Debt, Mode of Enforcing Payments, General and Special Laws, Taxation of Costs, Legal Fees of Attorneys and Law Officers, &c. &c. It is richly worth ten times its cost, and to many it is worth more than a hundred times its price.

ADDRESS AT THE ANNUAL MEETING OF THE NEW YORK STATE AGRICULTURAL SOCIETY. By Professor Emmons. — We are indebted to B. P. Johnson, Esq., for this interesting and able production on science as connected with agriculture, and the importance of agricultural education.

THE COMMON SCHOOL EXHIBITION, containing the May Queen, and Fairy Queen, and various other Original Pieces, suitable for Declamation and School Exhibitions. By H. P. Andrews, Teacher of Centre School, Malden. Fitz & Hobbs, 138½ Washington Street. 166 pp. 18mo. This little work is highly useful, and admirably adapted to its purpose. The author has shown excellent taste and sound judgment. We notice a few pieces, by Fitch Poole, of Danvers, in his usual fine taste and facetious style.

MASSACHUSETTS HORTICULTURAL SOCIETY.

There will be a semi-annual exhibition at the society's hall, June 20 to 23. Liberal prizes are offered for the best flowers, mostly for roses, amounting in all to over one hundred dollars. It will doubtless be one of the most splendid and beautiful floral shows ever witnessed, particularly of the rose family, which for beauty and fragrance still holds the ascendant.

TURNIP SEED.

One of the most respectable farmers in Montgomery county called upon us, a short time since, and gave us the following directions for preparing turnip seed for sowing: Mix the seed with flour of sulphur, then put in a bottle and cork up perfectly tight for six or eight weeks previously to planting. He has pursued this plan for several years, and has never known it to fail to protect the crop effectually against the fly. This is an important hint to our farmers, and we commend it to their attention. — *Germantown Telegraph.*

STRAW FOR BONNETS.

Directions for curing straw, to adapt it for the manufacture of straw bonnets, hats, &c.: "Cut wheat or rye straw while in full blossom, or as the blossoms begin to fall. Scald it in a few hours after

it is cut, (the head being first cut off,) in boiling water, about a quarter of a minute, then spread and dry it in the sun; take care that neither rain, or dew fall upon it. It will cure in three days sunshine. Then keep it in a dry place." To split the straw after it is properly cured, so as to reduce it to a proper texture, it is only necessary to fit the point of a penknife in a piece of board, leaving about the eighth or a fourth of an inch above the board, then pulling the straw against it. Straw of any size can be made. — *Selected.*

THE OLD HOMESTEAD.

Down in a quiet, sun-lit valley,
Stands my low-roofed cottage home:
Rushing thoughts around it rally,
Thither wafted while I roam.

There, in summer, as of olden,
Waves the green-topped maple-tree;
There, in autumn, serene and golden,
Shadows flit across the lea.

Still the streamlet cleaves the meadow,
Bordered by the mantling vine,
Where, beneath the tall oak's shadow,
Then I threw the hempen line.

Thoughtless childhood! happy childhood!
I would journey back to thee;
Roam again the "tangled wildwood,"
Sport beneath the maple-tree.

There no busy sorrows fashion
Phantoms in the path of youth,
Nor pale care nor purple passion
Taint the bloom of love and truth.

THE OLIO.

A good old minister prayed fervently for those of the congregation who were too proud to kneel and too lazy to stand.

SECRETS. — The reply of Charles II., when importuned to communicate something of a private nature, deserves to be engraven in the heart of every man: —

"Can you keep a secret?" asked the subtle monarch.

"Most faithfully," returned the nobleman.

"So can I," was the laconic and severe answer of Charles.

Horne Tooke, being asked by George III. whether he played cards, replied, "I cannot, your majesty, tell a king from a knave."

THE HEIGHT OF IMPUDENCE. — Taking shelter from a shower in an umbrella shop.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, JUNE 23, 1849.

NO. 14.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

THE PROSPECT FOR FRUIT.

APPLES.—Many of our readers have seen in the American Fruit Book, or in journals which we have conducted, our views as to the bearing year of apples; that in even years we have large crops of apples, if the season be favorable; that we never have a large crop in odd years, let the season be never so auspicious. According to this proposition, founded on experience and observation for more than thirty years, this is a season for a small crop, or only a medial crop, if the season be favorable, and appearances as to the blossoming of the trees and setting of fruit support this position.

PEARS.—According to present appearances, the crop of pears will be very light, particularly of the Bartlett, which is cultivated far more extensively than any other kind, and in some sections more than all other kinds. In many cases, no blossom buds had formed on the pear, and in others, the buds or blossoms have been killed by unfavorable weather. Some cultivators, who have paid great attention to this fruit, find that nearly all their trees have failed. The pear, particularly the fine kinds, is very uncertain. It is often destroyed by cold winters and hot summers; and it frequently suffers from a location in either extreme of wet or drought.

PLUMS.—We have heard but little of these, and our observations have not been extensive. From what we have seen, the crop will be light.

CHERRIES.—Present appearances indicate a large crop.

QUINCES.—These are promising.

PEACHES.—In some cases, there will be a total failure, mostly on low lands, or on flat lands slightly elevated. On well-elevated and high lands, the prospect is very good. The crop will be a mean between these wide extremes—probably about middling. Natural or seedling trees are more prosperous than budded trees.

STRAWBERRIES.—The plants have endured the winter well, and the season is very favorable. We have a good supply of moisture; and as they are beginning to ripen, (June 13,) the early kinds will not be liable to injury from drought, which sometimes

cuts off the crop on light lands. A very few raised in this vicinity are in the market, and sell pretty well. From New York there is a very large supply; sales dull and prices low.

CURRENTS and GOOSEBERRIES look well.

STIRRING THE EARTH.

In frequently stirring the earth, there are several and important advantages. It loosens the soil, and makes it permeable to the roots of plants. It finely pulverizes the soil, reducing the sods and clods, and mixes the different kinds or layers of soil turned up by the plough together, and mixes the manure finely with the soil. We have ploughed greensward for immediate sowing with fine seeds, and by manuring, and the frequent use of the harrow and cultivator, we have made it of fine tilth, and well adapted to tender plants, like old, mellow soil.

By stirring the soil often, so as to present new surface to the air, it becomes enriched by elements imbibed from the atmosphere. But if the earth is allowed to rest, a crust is formed at the top, and no improvement of consequence takes place in this way. Hence, in ploughing or cultivating land often, in order to kill witch or couch grass, sorrel, or other noxious plants, the soil becomes improved by the means used to eradicate the weeds with which it is infested; so that the whole labor is not spent merely to destroy the cumberers of the ground. The soil that is turned up in deep ploughing, or that works up moderately in subsoil ploughing, becomes greatly improved on exposure to the atmosphere, and frequent stirring.

By stirring the soil, weeds are destroyed in their tender age, before they become large, to rob the plants of nutriment, or require a great deal of labor to destroy them. If the farmer can keep ahead of his work so as to stir his tillage lands often, just as the weeds have started, he will save a great deal of labor, besides gaining an advantage in having his land in the best condition in other respects for a good crop. Some writer says, in regard to manuring, "Feed your crop, and your crop will feed you;" and it may,

with equal propriety, be said, Protect your crop against the weeds, and your crop will protect you against want.

Frequent stirring the soil is the cheapest and most effectual protection of crops against drought. The soil that is often stirred, in a dry time, is moist almost to the surface, while that which is neglected, or lands in grass or small grains, which do not admit of this operation, are dry to a great depth; and this is one reason why wheat sowed in drills, and cultivated as other crops sowed in the same way, yields more than that which is sowed broadcast. At another time, we may make further remarks on this subject.

Every good cultivator is aware of the important advantages in stirring the soil often, and he practises on this principle with excellent success. Let those who have any doubts on the subject, select a part of a lot, give it extra culture, and mark the result.

BEETS FOR WINTER.

Beets for winter use, and for seed, are better for late sowing. When sowed early, they attain their growth before cold weather, and become dry and hard, and are tending to decay, and are gradually losing in value. But sow beets rather late, so that they will not have attained quite a full growth as vegetation ceases, and they will be young and tender for the table, will keep well, and if set for seed, they will be vigorous and send forth strong shoots.

We sowed beets last season the 7th of June, and they grew too large, and were too old and hard at harvest time; and we shall sow this season about the 15th or 20th: the latter period would be early enough should the fall be as warm as it was last year. In Maine, we used to sow our beets the first week in June. In this way we succeeded far better than when we sowed early in May, for in such cases the crown of the roots would decay in winter, and we could not keep them in good condition for seed or any other purpose.

A partially grown beet, or other root, will keep far better than those that are full grown. We turn warm water on our seed, and keep it in a warm place about two days before sowing, which forwards it about one week, and gives the plants a start of the weeds.

PASTURAGE.

It is said that in North Wiltonshire, famous for its excellent dairy products, the farmers are in the practice of mixing sheep with cows to prevent the pastures from becoming too luxuriant, in the proportion of one sheep to one cow. An English author recommends the mixing of a few sheep and one or two colts, in each pasture for horned cattle. Another writer on English husbandry says, that the following method has long been successfully practised by the Hollanders, and recommends its adoption in his own country. He remarks that when eight cows have been in the pasture so long as entirely to consume all the grass they can graze, and can of course no longer obtain the necessary quantity of food, two horses will find a sufficiency of food for several days.

After these begin to fail of procuring an adequate amount daily, to supply their wants, four sheep will be able to live in the enclosure, and procure food for weeks. Sheep, however, should never be permitted to occupy the same pasture with black cattle or horses; they foul and trample more food than they consume; but when it is convenient to take the former from a field or pasture, sheep may be profitably introduced, to consume what the cattle have left.

A PRACTICAL FARMER.
BALD EAGLE FARM, May 15, 1849.
— *Germantown Telegraph.*

REMARKS BY EDITOR N. E. FARMER. — We suppose that the object of the foregoing article is to show the advantage of changing animals in the same way as in a rotation of crops. By a change of crops, one will often take up the elements which the preceding left, and in this way a larger amount of produce may be obtained in a number of years, or in the course of a regular rotation.

One kind of animals may go over a pasture and eat all the food that is acceptable. Then another kind will find a good supply in what their predecessors have neglected. The third race may follow, and do well. A horse will often eat coarse herbage which other animals refuse. We have seen horses eat thistles and burdocks, which some animals never taste.

In New England, cattle, horses, sheep, and sometimes pigs and geese, run in the same pasture; and the fine condition which we have observed in all the animals under such circumstances, would not lead us to think that any injury resulted from such practice, but the advantage in regard to rotation of pasturage was great. This mode of putting different kinds of animals into the pasture together, compared with tillage, may be considered like mixed crops, where the different plants are selecting each its appropriate food at the same time, instead of succeeding each other, as in rotation.

NORFOLK AGRICULTURAL SOCIETY.

On our 72d page we gave notice of the formation of this society, under the most favorable auspices. In due time the trustees held meetings, and fixed on a list of premiums, appointed a committee of arrangements, and committees or judges on the awards of premiums. The list of premiums is extensive, and includes a great variety of subjects.

The offers are liberal, and in some cases very large. The spirit of enterprise and intelligence that generally pervades this county, the efficiency of the officers of this association, and the liberal funds already raised, are a sure guaranty of success. Although this society is in its infancy, we think, judging from the amount of work laid out, that they will not be inferior to older associations in the extent and utility of their operations.

We have not deemed it necessary to publish the lists of premiums and names of awarding committees of this and other societies, as they are scattered all over the counties by means of local papers before we see them, and such matter is generally of interest only to the county to which it appertains.

PROFIT OF A COW.

There is no doubt that in many cases a mechanic or other person having small means as to land, and time to attend to the business, can keep a cow with profit, and in this way furnish for his children more wholesome food, by having a good supply of milk.

The following calculation on the profits of a cow is made by Mr. Dana Burbank, of Newton, from facts resulting from his experience in Vermont, with prices intended to correspond with those in this vicinity. We think the price of the cow, for one so productive, is too low, or the sum for her annual depreciation is too small. Ten dollars for the use of the cow, risk, and tax, is low enough. Something should be allowed for taking care of the cow, and for selling the milk, even if it is called for, as there is trouble in dealing it out, keeping accounts, &c. Yet some persons are so situated that they can attend to this business conveniently. If a person uses all the milk in his own family, it may be a question, whether it is worth four cents a quart.

MR. BURBANK'S CALCULATION.

1½ tons of hay at \$16,	\$24.00
Pasturage four months,	10.00
9 bushels meal,	9.00
Driving,	7.00
Cost of cow,	30.00
Total,	\$80.00
16 qts. of milk per day, at 4 cents for 120 days,	\$76.80
6 qts. of milk per day at 4 cents for 120 days,	28.80
Calf,	6.00
Total,	\$111.60
Manure, 2½ cord,	12.50
Cow on hand,	25.00
Total,	\$149.10
Cost deducted,	\$80.00
Profit,	\$69.10

SAVING CLOVER HAY.

As it is difficult to cure clover hay so as to have the large stems well dried, without the leaves and other fine parts becoming so dry as to be wasted, in some measure, we have found it an excellent mode to mix layers of straw, old hay, bean or pea vines, or other good or refuse dry litter, in layers with clover hay, which saves it in fine condition; and the straw, &c., becomes sweetened by the clover, and if it contains nutriment, it will make good fodder. Materials too coarse and poor for fodder may be used to save clover from injury, and then used for bedding, as they can be easily separated in using the hay.

SALTING HAY.

We have often cautioned farmers against salting their hay too profusely. No more salt should be put on hay, than animals would voluntarily consume while eating it if the salt was given to them separately. We are astonished to find, in a valuable agricultural journal, advice to add ten or twenty quarts

of salt to a ton of clover hay, which will aid in preserving it, if rather green.

The largest quantity — twenty quarts to the ton — would be about twice the amount given to a horse in a year, at the usual allowance of an ounce per day, or half a pound per week. Four quarts of salt to a ton of hay, is as much as animals commonly consume when they have their own choice. Hay is greatly injured by the use of large quantities of salt to save it, when put into the mow only partially cured; and in some cases, diseases and death among stock have been the consequences of a too liberal use of salt as a preservative.

How would a man like butter with four ounces of salt to the pound, in order to save it without the trouble of working out the buttermilk? We have been particular on this subject, as dealers inform us that much hay brought to this market is injured by over-salting, for the purpose of saving it when housed too green.

PRESERVATION OF WOOD.

Experiments made in England show that soaking wood in lime-water preserves it to a remarkable degree. A house was erected forty years ago, in which Scotch fir was used for timbers. A portion of the timber was soaked in lime-water, and a portion used without such preparation. The former is still sound, while the latter is much eaten by worms, which, as is well known, usually destroy this kind of wood in a few years. The method of saturating the wood is described as follows: "In preparing wood for the purposes of building, saw it into such lengths as the occasion demands; next, plunge the planks or beams into a pond of lime-water. The pond is made thirty or forty feet long, five or six feet deep, sixteen or eighteen feet wide; and the bottom and sides are rendered water-tight. It is then filled with cold water. Before receiving the wood, a quantity of fresh-burned hot lime is thrown into the pond, which is well stirred with the water, to dissolve as much as possible of it. Into this strongly impregnated solution of lime-water, the wood, in the various shapes it has been sawn into, is then thrown. As lime-water absorbs carbonic acid from the atmosphere, the lime previously held dissolved in the water becomes insoluble, and is slowly abstracted from the water, and deposited at the bottom in a solid state, as mild lime or carbonate of lime: hence the necessity of now and then throwing in fresh portions of recently calcined lime, that the water may be resaturated with the strongest solution of this caustic alkaline earth."

The timber remains in the water from two to three weeks. The lime is absorbed by the pores of the wood, and appears to destroy the albumin us and saccharine principles, or so changes them, that the wood no longer affords the food on which worms subsist. The slight petrification which the wood thus undergoes, prevents air and moisture from penetrating it, and renders it almost indestructible. It should be thoroughly seasoned before it is used.

It has been eloquently remarked that in the obscurity of the cottage, far from the seduction of rank and affluence, is nursed the virtue which counteracts the decay of human institutions — the courage which defends the national independence — the industry which maintains all classes of the state.

For the New England Farmer.

CATTLE SHOWS.

MR. EDITOR: A disposition is manifested in some quarters to disparage the utility of cattle shows. That veteran agricultural editor, Mr. Skinner, has of late years given unequivocal evidence in print that he has little confidence in the good results of these annual exhibitions. Our own State Agricultural Society, by discontinuing their shows and appropriating their whole income to the improvement of stock, give striking proof to the same effect. And in justification of their course, in this respect, they say in their report, which appears in the Agricultural Abstract for the past year, "Our long repeated cattle shows were degenerated into holiday gatherings, and tending, in the language of the late Governor Wright, to become arbitrary experiments, based on no philosophical investigation of cause and effect." It becomes those, therefore, who are interested in getting up these shows, and in offering and awarding premiums for stock, crops, and farm improvements, to inquire and ascertain if cattle shows are indeed productive of little or no benefit; and it becomes the legislature of the commonwealth, especially, to learn if the bounty annually dispensed by the state for the encouragement and support of these exhibitions goes only to the encouragement and support of mere holiday gatherings.

In taking a general view of the subject, one would suppose that it was pretty strong proof, if not conclusive proof, in favor of such shows, that they are every year multiplying throughout the country, increasing in interest, and growing in favor with the whole community. True, the public may be laboring under a delusion or mania on some subjects; but it can hardly be pretended that so great a mistake should be deliberately, and through a long series of years, committed by so many societies, acting independently of one another. The Highland Agricultural Society of Scotland has been in existence for more than half a century, and, besides offering premiums for agricultural essays, and supporting a museum and a veterinary school, continues to offer premiums for live stock, agricultural machinery, and farm improvements; and with what benefits to the agricultural interests of that country, it is too well known to be related.

In a preliminary notice to their Transactions for 1841, in view of the results of their labors, the directors say, "Throughout Europe, and in America, the example of this society has been held forth as one worthy of imitation; and the directors rejoice to say, that within the last three years, a sister society has sprung up, and has been established upon an extensive basis, in England, which has already done much, and will quickly do more, for the general welfare of that country."

Is this ancient society wrong in its judgment? Are its cattle shows, and the numerous agricultural shows in England and in this country, mere holiday gatherings? Surely it will require stronger proof than has yet been adduced that they are so; the presumption of antiquity and of general consent is in their favor, and no array of high authorities should be taken as settling the question against them. The burden of proof rests with those who maintain that cattle shows have ceased to accomplish any good.

Indeed, they should be well assured of the fact, before they sow the seeds of discontent among the farming community. It is well known what pains have been taken by the early founders of agricultural societies to satisfy practical farmers of the utility of cattle shows, and to persuade them to take an active interest in them. The success attending these efforts have been so great, that now the day of cattle

shows is truly with farmers the great day of the year. But if the directors of the agricultural societies and the agricultural press turn round and say that they have been all at fault in this matter, cattle shows are only holiday gatherings, they are of no service to the advancement of agriculture, and we must direct our attention to something else, — what are farmers to think, and how are they to decide about it? But there is little danger that the confidence now enjoyed by agricultural societies will be so easily shaken, or that cattle shows will fall into disuse, because some new way has been supposed to be discovered for the advancement of agriculture. If it be discovered, so much the better; but there seems no reason that in following it, or in urging others to follow it, any odium should be cast upon that way which has so generally been adopted and approved.

The experiment now in process by the State society may be of great benefit to the commonwealth, if not directly, perhaps indirectly, by turning public attention to the improvement of our milking stock. But it may also result only in a failure; the breed of cows introduced by them may be inferior in their general character to that which we now possess, and not adapted to our climate and feed. Let us wait and see, before we abandon our cattle shows to find some better way to help along the farmers.

ALLEN W. DODGE.

HAMILTON, June 2, 1849.

EDITORIAL REMARKS. — We think it is too late in the day for any one to decry cattle shows with any prospect of success in putting a stop to these exhibitions. Throughout this country, as well as in other parts of the world, gentlemen of the highest intelligence, and the most skillful in practice, have given their influence in favor of cattle shows. We will allow that they are "holiday gatherings;" but they combine useful instruction with amusement, thus accomplishing a great and important purpose. Shall not the farmer and his boys be allowed one festival in the year in their own peculiar line or profession?

If cattle shows degenerate into scenes of amusement only, it must be owing to neglect or want of good management in the officers of societies. We often see at a show numerous ploughmen and teamsters trying their skill and contending for the prize, or for excellence, and the officers busily engaged at their respective duties; then, perhaps, comes the address often combining important facts with "flights of fancy, and flashes of wit;" and music frequently adds a charm to the scene. Then comes a good dinner. Let those who object to cattle shows call this a mere holiday affair, if they please; but it is what many indulge in at home. Toasts often succeed, combining the useful with the sweet, and short speeches of the same character; and after a little recreation in this way, then comes the labor of making and reading reports.

Now, in this round of duties of labor and recreation, all tending to promote the most useful professions that ever engaged the attention of man to give a charm and impetus to industry in its various pursuits, can any one well acquainted with the subject see any thing that is objectionable?

Occasionally, there may be mismanagement at a cattle show; but if this be brought as an objection, it will weigh equally heavy against every good thing that is under man's administration. But we may have said too much already on a question so clear.

High authorities can never outweigh the still higher authority of truth. We have regarded cattle shows as among the most effectual means of improvement, and we hope that those who oppose these exhibitions will show what evils necessarily attend them, before they attempt to lessen their influence.

For the New England Farmer.

APPLE-TREES—TIME OF BLOSSOMING.

MR. EDITOR: Thinking that you may be pleased to lay before your readers the following table, I forward it for insertion in the New England Farmer. It contains the blossoming of apple-trees in Mansfield, Massachusetts for fifty-two years, from 1798 to 1849, in 1 s ve.

1793,.... May.... 13.	1824,.... May.... 19.
1799,.... ".... 19.	1825,.... ".... 15.
1800,.... ".... 17.	1825,.... ".... 15.
1801,.... ".... 17.	1827,.... ".... 17.
1802,.... ".... 23.	1828,.... ".... 17.
1803,.... ".... 22.	1829,.... ".... 21.
1804,.... ".... 22.	1830,.... ".... 9.
1805,.... ".... 14.	1831,.... ".... 14.
1803,.... ".... 27.	1832,.... ".... 31.
1807,.... ".... 27.	1833,.... ".... 12.
1803,.... ".... 18.	1834,.... ".... 20.
1800,.... ".... 25.	1835,.... ".... 29.
1810,.... ".... 19.	1833,.... ".... 21.
1811,.... ".... 15.	1837,.... ".... 30.
1812,.... June.... 2.	1838,.... ".... 30.
1813,.... May.... 25.	1839,.... ".... 18.
1814,.... ".... 14.	1840,.... ".... 17.
1815,.... ".... 27.	1841,.... ".... 26.
1816,.... ".... 28.	1842,.... ".... 19.
1817,.... ".... 23.	1843,.... ".... 22.
1818,.... ".... 29.	1844,.... ".... 11.
1819,.... ".... 25.	1845,.... ".... 21.
1820,.... ".... 17.	1843,.... ".... 15.
1821,.... ".... 27.	1847,.... ".... 28.
1822,.... ".... 15.	1848,.... ".... 19.
1823,.... ".... 23.	1849,.... ".... 29.

OBSERVATIONS.—May 9, 1830, and June 2, 1812, are the two extremes. Difference, 24 days; the mean of which is May 21. The mean annual blossoming for the whole fifty-two years, is exactly May 21. The mean of the first 23 years, is May 22, nearly; and of the last 26 years, is May 20.

The observations were taken when the blossoms had fully expanded, generally, (except some late kinds, as the russet, &c.,) and their petals had begun to fall to the ground; (that is, as many petals had fallen as what remained to expand.)

My father, Isaac Stearns, Sen., who was a farmer of Mansfield, took the old Farmer's Almanac, published by Robert B. Thomas, from its commencement, in 1791, till his death, (my father's,) in 1837, and carefully noted in the margin of the Almanacs, the time of the blossoming of apple and other trees, with other events, which are to this day reserved in the family, making four good-sized volumes. We have been careful to continue the practice, so that you may depend upon the accuracy of the *memoranda*.

Most respectfully yours,
ISAAC STEARNS.

MANSFIELD, June 4, 1849.

EDITORIAL REMARKS.—The preceding record forms an important document for the farmer, as it presents facts instead of guess-work, which is often substituted for authentic records, which might be kept by every man. Many persons have observed that

this is the latest season that they ever knew. By the above record it appears that several seasons have been more backward, and one was four days later.

These records are very valuable to the cultivator, serving, in many cases, as a guide in timing various operations. These and others, embracing various matters, should be kept by every farmer and gardener. They will cost him but little time, and they are often of much importance and utility.

For the New England Farmer.

THE HAY CROP.

WHAT SHALL WE DO WITH THE SURPLUS?

MR. EDITOR: As many of our farmers have a large surplus of hay on hand, and as the prospect is now favorable for another large crop, the question naturally arises, with those who have a surplus on hand, and usually fill their barns with one crop, What can be done with the hay the present season?

A kind Providence so orders that before a scarcity there is usually a great plenty. We are informed that before the seven years' famine in Egypt, there were seven years of plenty. I do not predict a famine of hay, (at least the present appearances do not indicate it;) but I do think that it should be preserved, for it is usually the case, that all the surplus hay will be wanted, and will sell for a fair price within a few years.

Now, the question is as to the best way of keeping it without the expense of building new barns, as that is too expensive for one surplus crop.

One person recommends stacking it and covering it with oil cloth; another person recommends covering the stack with a roof; a third person recommends screwing the hay, as it then will occupy but little room, and is more convenient to carry to market.

I should like to have you, or some of your intelligent correspondents, give some information, through your valuable paper, on the subject.

The expense of the oil cloth, and its durability; the best manner of making a roof, and its expense; the expense of screwing; the expense of screwing apparatus; also whether screwing injures the hay, and whether new hay can be screwing in the field without injuring it; also any other information connected with the subject.

A SUBSCRIBER.

EDITORIAL REMARKS.—Hay may be secured in stacks, by covering them well, which can be done at a moderate expense. A better way, when there is a convenient chance, is to make a large mow against the barn, and secure it by a good covering of boards or other suitable material. Perhaps one long stack, forming an oblong square, would be preferable to several, as it could be covered with more convenience, and there would be less exposure on the sides.

Hay may be pressed at a moderate expense, and it will then require far less room than loose hay. But to do it cheaply, a person should have a good apparatus, and be well acquainted with the business. In those sections where much hay is pressed, the pressing is usually done by some persons who travel round and make a business of it. The usual price is about seventy-five cents a ton and board, making the whole cost about a dollar a ton.

As to the cost of binding materials, we do not

know. They vary very much in different parts of the country. When hay is sold without any deduction of tare for the withes and bands, these materials generally sell for more than they cost.

A farmer, in Westbrook, Me., who resided one and a half miles from the wharf in Portland, where he delivered his hay, informed us that he would rather deliver his hay, about fifty tons, on the wharf, pressed, than in a loose state. As so much less time was required in loading and unloading, and as larger loads could be hauled, the saving in transporting pressed hay, even that short distance, was sufficient to pay for pressing; and the bandages, sold at the price of hay, paid the cost of those materials.

We do not know whether it is customary to press hay before it has lain a while in the mow, but we think that hay well made might be pressed without injury. As the bundles of hay cannot be laid so close together as to prevent a circulation of the air between, we think that pressed hay, if a little too damp, would be no more liable to injury in the bundle than in a mow of common dimensions, especially where several tons are put into the mow in the course of a few days. On this we give an opinion only, not facts.

A ton of pressed hay will occupy a space of about one hundred and seventy or one hundred and eighty square feet. In a solid mow, the space for a ton of hay has been estimated from four hundred to six hundred square feet. We have never made any experiments on this point, but from observation we think that a solid mow, twenty by twenty-four feet, one foot in depth, — four hundred and eighty square feet, — would make a ton if the hay was heavy. Perhaps five hundred feet would be a fair estimate.

According to our calculation, which we think is nearly correct, pressed hay would occupy only about one third the room of loose hay.

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For the New England Farmer.

APPLES.

MR. EDITOR: Noticing a communication in one of your back numbers from a gentleman in a neighboring town, with whom I have an acquaintance, respecting apple-trees, their bearing, &c., I thought I would say a few words about some seedling apple-trees which I have grown on the farm since I lived in Fryeburg. They consist of five different kinds. The first is a very large apple, resembling what was called, forty years ago, the *New York Greening*. I have had them that measured eleven and a half inches in circumference. They are in eating from November to February. I have named them *Lovell Greening*, in honor of Captain Lovell, who fell on the north-western shore of the pond, in Fryeburg, bearing his name; my farm making the north-eastern shore of the same pond. I have had people from Massachusetts at my house, who, on tasting of the above apples, remarked that they were good enough for any gentleman's table.

My second sort resembles, in color, (though the shape is more of an oblong form,) an apple in Massachusetts, called, many years ago the *Pippin*, which I have named the *Lovell Pippin*. They are a fall apple, in eating from October to December. They are a delicious fruit, of a full medial size, highly flavored,

and very melting; superior for pies and other culinary purposes.

My third sort is an early apple. It ripens near the time of the old Juneatings, of your state, that I used to know in my younger years. They are not like them in color; they are striped with red, of a small size, of very agreeable flavor, and valuable for their early ripening, when fruit is scarce.

My fourth and fifth are sweetings, and keep well for winter use; one of them more than middling size, the other smaller; very rich and highly flavored, and excellent for winter. I have some grafted fruit; but they are short-lived, unless grafted in the ground, which I consider much better than budded trees. I have other seedlings that are excellent in the fall, but I will not trouble you with a description of them now.

I am your agricultural friend,

JAMES WALKER.

FRYEBURG ISLAND, June 4, 1843.

Mr. Walker will oblige us by forwarding to our office, for trial, some of his fine apples, at the proper season. — Ed.

HILLING POTATOES.

Several years ago, we made an experiment to ascertain whether hilling potatoes was of any advantage. We left two rows with the ground level: those on each side were hilled in the usual mode. At harvest time, it was found, by careful measurement, that the two rows left level yielded most — how much most, we have forgotten. Since that time, we never "hill up" potatoes, unless the ground is too wet, and we want to turn off the water. An inch or two of earth over the tubers will keep the sun from injuring them, and that is all that is needed. We see some one, who signs "An Old Farmer," gives the result of an experiment of this nature in the *N. E. Farmer*. He left two rows in the piece unhilled, or only gave them a little earth at the first hoeing. At harvest, he measured the product of the two unhilled rows, as well as that of two rows on each side, and the unhilled rows gave five pecks more (and larger potatoes) than either two of the other rows. He argues (and reasonably) that by hilling we deprive the crop of the benefits of moisture. He says potatoes need a mellow soil; but this cannot be well secured by increasing the size of the hill after planting. A correspondent of the *London Gardener's Chronicle* says, "Moulding up potatoes retards the formation of the tubers." The editor of that publication doubts the conclusion of his correspondent, and says, "Potatoes are stunted and swollen branches proceeding from the sides of the main stems, which alone rise into the air, clothe themselves with leaves, and so convey their food to their underground progeny. * * * Now, the quantity of lateral branches will be in proportion to the quantity of earth through which the stem passes; tubers are lateral branches, and therefore the quantity of tubers will be regulated by the same cause. Moulding up is a contrivance to increase the quantity of earth through which the main stems have to pass, and should, therefore, according to the theory, be a beneficial operation."

Now, we do not understand how it is that "potatoes are stunted and swollen branches," &c. We believe that potatoes proceed from a class of roots or stems entirely different from others, and designed particularly for the production of tubers. In the next place, the editor contends that as "moulding up" increases the number of lateral branches, the quantity of potatoes would also be increased by the same means. Our experience has taught us a somewhat different conclusion. We admit that the large quantity of earth through which the main stem

passes has a tendency to increase the number of lateral branches; but we have *not* found this increase of branches or roots accompanied by a corresponding increase in the weight or yield of potatoes. In other words, we have found earthing or "moulding" up to increase the number of roots, and the number of tubers, but not the yield either in weight or measure, because they were "small potatoes." We have also noticed that those varieties which throw out a great number of lateral branches, produce many tubers in number, but few in the aggregate weight.

The editor speaks of potatoes being produced in the dark, which formed all over the branches, of which he gives an engraving. We have often seen potatoes produced in this way — have found them very numerous, but never knew any but small-sized ones grown in such circumstances. — *Albany Cultivator*.

REMARKS BY EDITOR N. E. FARMER. — We have no doubt that the making of high hills around potatoes, as practised by many farmers, is very injurious in dry land. The hill throws the water from the potato plant, and it runs down and settles in the hollows between the hills, below the level of the tubers, or the most of the roots, and it soon soaks into the ground. In some cases of high hilling, we have examined the potato hills, after a powerful rain, which fully saturated lands with an even surface, and the potato hills were dry.

Large crops of potatoes are raised on burned land, where no hill can be made, and in planting it is difficult to get the potato under the scurf, so as to plant it well. A very little light, fine soil, drawn around the potato plant, leaving the earth a little concave, so as to catch the water and conduct it to the roots, will be beneficial; but carefully guard against making hills that will throw off the water.

RECLAIMED LAND.

To Samuel L. Hinckley, Esq., Secretary of the Hampshire, Franklin, and Hampden Agricultural Society.

Sir: I present to said society the following statement of my experiments in "reclaiming wet lands," submitting the same as an application for premium.

My farm comprises a good deal of low, moist land. I had a swale at the foot and between two small hills, at the top and in the middle of which were two cold springs, and some slough holes, that would not freeze in winter. Beside the uselessness of the land for cultivation, I could not cart over it at any season of the year. This swale was from four to eight rods wide, and about forty rods long. I cut a ditch lengthwise through the centre of it, of four feet depth; this I half filled with stones, covered with brakes, and then filled with dirt, making a blind ditch. This swale now bears the very best English grass, having only been harrowed and sprinkled with herdsgrass and clover, and yields quite three tons to the acre. The ground is hard and dry enough, and I can team over it at any time. Some portions of it I have planted to oats, corn, and potatoes, and got good crops. The ditch of forty rods cost me five days' labor in September, at, say seventy-five cents per day: the filling with stone I considered no expense, as I was necessarily carting away stone heaps from my upland, and could put them here with as little trouble as elsewhere. The covering took perhaps two or three days' work more, — the whole expense not exceeding six dollars for reclaiming nearly one and a half acres.

Another experiment. — I have an interval of fifty or sixty acres, nearly in the centre of which was a spot of about two acres, too wet to plough, and covered with little knolls, (probably where trees had been rooted out,) which made the mowing very difficult. In fact, it was scarcely worth mowing, as there was no grass on the knolls. I ploughed off the knolls, and filled the hollows, covering the ground well with the dirt from the knolls, and yet carting off the compost heap quite thirty loads, with which I mixed about six loads of stable manure, making a rich compost bed. I then covered this spot with compost manure, at the rate of fifteen loads to the acre. The second year it yielded a very bountiful crop of clover and herdsgrass — at least six times more than before reclaiming. The expenses attending this experiment were about eight days' labor for the two acres, which was amply repaid by the thirty loads carted to the compost heap. I now get not less than three tons to the acre of this heretofore useless spot.

NATHANIEL EAGER.

WORTHINGTON, December 30, 1848.

TURNING IN GREEN CROPS.

To Samuel L. Hinckley, Esq., Secretary of the Hampshire, Franklin, and Hampden Agricultural Society.

Sir: I present to said society the following statement in relation to my experiments in "turning in crops, either green or dry, as a manure," submitting the same as an application for a premium, under the first division of "Experiments on Manure."

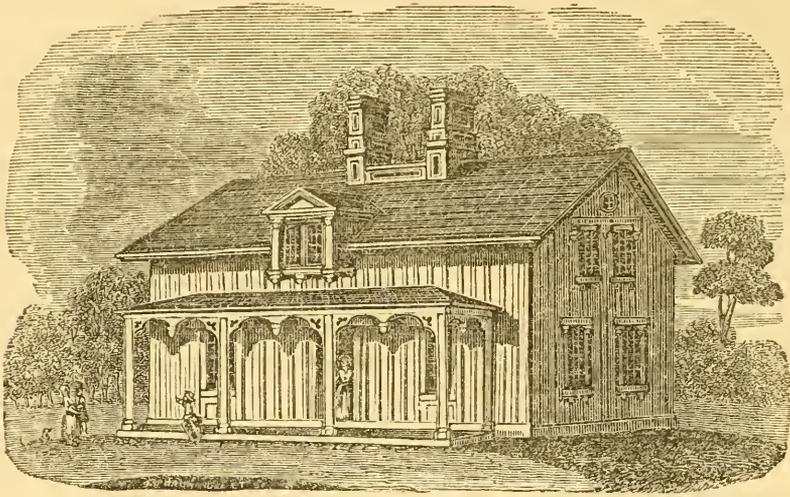
This experiment has occupied several years, and I have devoted no little time and attention to the subject, — I am happy to say, with the most satisfactory results. I had about two and a half acres of meadow, which was worn out entirely; and when I seeded it down, the grass would not take. I commenced by spreading green stable manure over it, at the rate of about twelve loads to the acre, and ploughed it in, rolled it, furrowed it, and planted to corn, adding about eight loads of manure to the acre in the hill, making in all twenty loads to the acre. I got a fair crop of corn, and next year seeded it down to oats, with about eight pounds clover seed to the acre. The crop of oats was fair. The following June, the clover being very thick, and about knee high, I turned it in very carefully, and sowed it to buckwheat, getting an excellent crop. I cut the buckwheat as high as possible, and turned the stubble in, then sowed to oats four successive years, (cradling my oats as high as possible, and immediately turning the stubble in,) and got an increased crop every succeeding year. The manure alone would have run out in two or three years; but turning in the clover and the stubble every year, enriched the land, and increased the crop. This piece, having been seeded down, now bears very heavy grass, quite equal to three tons to the acre.

NATHANIEL EAGER.

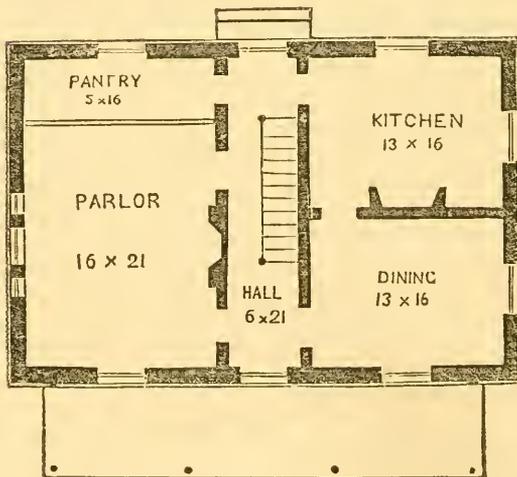
WORTHINGTON, December 30, 1848.

APPLICATION OF PLASTER AND ASHES TO MEADOWS.

If a meadow be manured only with plaster of Paris, the crops of grass will be at first greatly increased, but will afterwards diminish; for the silicate of potash which the soil contained, is soon exhausted by the rapid growth of the grass, and its further increase is checked. But, if the meadow be strewed from time to time with wood ashes, which contain potash, the grass will thrive as luxuriantly as before. — *Selected.*



DESIGN FOR A COTTAGE.



GROUND PLAN.

COTTAGES.

On the opposite page is the representation of a cottage, on a plan well calculated to afford comfort, with economy in building. It is well adapted to a small family, having on the ground floor a large parlor; a dining-room, of moderate size, which may also be used for a sitting-room; a kitchen, pantry, and hall.

On the second floor there is room for four bedrooms, and a hall through the centre, well lighted, affording convenient access to each room distinctly. There is room in the attic for small sleeping-rooms, or for a store-room. The whole plan combines good taste, ornament, convenience, and economy.

This cottage may be built of any materials the owner prefers as to taste or economy — wood, brick, or stone. Our engraving represents the walls covered with boards vertically, and battened, which, when well done, with clear stuff, well jointed, neatly battened, and painted a suitable color, is beautiful and durable, and in better taste than clapboards painted white. In this mode of covering, the water runs with the grain of the boards, so that the wear of the walls is very little; and, the outer substance being thick, it will last a great while. We would recommend either of the following colors instead of white, (see page 222,) drab, French gray, light slate, fawn, chocolate, or straw color. They are generally cheaper and more substantial, and in much better taste for cottages.

It has been a custom with many farmers to build very large houses, and finish only a part. Such buildings are very expensive, and as to comfort and neatness, they are inferior to small, neat cottages.

FALKIRK TRYST.

The largest cattle market in the kingdom, uniting sheep and cattle, takes place three times a year — on the second Tuesday in August, September, and October, at Falkirk, in Scotland, about equidistant from Edinburgh and Glasgow. This is called the Falkirk Tryst, and is held on an extensive plain, about three or four miles from the town. Here are congregated a vast number of horses, cattle, and sheep, and of buyers and sellers. It was estimated, when I was there, that the number of cattle then on the ground exceeded fifty thousand head, and of sheep seventy thousand; and the banker informed me that the money employed in the negotiation would exceed three hundred thousand pounds, or one million and a half of dollars. The cattle and sheep exhibited at this tryst are almost altogether of the Scotch breeds, and many come from the remote Highlands. They are purchased to be distributed in the neighborhood and the southern provinces for wintering, or for fattening for the winter and spring markets. Besides cattle and sheep, a large number of horses are brought for sale at the same time; as many as three thousand horses are sometimes offered for sale, and the field presents the appearance of a grand military display; indeed, I have seldom seen a sight more imposing. For a week or more before the tryst, the roads leading to Falkirk will be found crowded with successive droves of cattle and sheep, proceeding to this central point; and it is extremely curious, on the field, to see with what skill and care the different parties and herds are kept together by themselves. In this

matter, the shepherds are greatly assisted by their dogs, who appear endowed with a sagacity almost human, and almost to know every individual belonging to their charge. They are sure, with an inflexible pertinacity, to follow and bring back a deserter to the flock. Purchasers come in great numbers from various parts of the kingdom. Some cattle are bought to be resold at other and smaller markets. The larger number are bought in order to be fed or fattened on the arable farms at the south. Cattle which have thus been driven from the extreme north are afterwards to be found even in Cornwall, at the Land's End.

The sales in these cases are, of course, for cash. Bankers are always pre-ent, or near at hand, to facilitate the transactions. Here, at a distance little less than four hundred miles from London, bankers go down from London, carrying their funds with them, and occupying, during the time of the market, (which continues at least four days,) a temporary stand or office in the field. — *Colman's Tour.*

LIME AND SALT MIXTURE.

In a former article on this subject, we stated that, for the purpose of making the chloride of lime, and carbonate of soda, as the resultants from the admixture of lime and salt, three bushels of shell lime should be slaked with one bushel of salt dissolved in water. Since writing the article above referred to, we have received a letter from a practical friend, stating that he could not use so large a quantity of the solution of salt with the lime, and that he had therefore been compelled to mix part of the salt in an undissolved state with the lime. He suggests, also, that we should further explain, to prevent similar difficulties arising with others.

If the three bushels of shell lime be hot from the kiln, it will take up as much water as is necessary to dissolve one bushel of salt; but if it be long exposed to the action of the atmosphere, it will not readily receive so large a quantity. In such case, we should advise that after the mass has been turned over, new portions of the solution of salt should be added each day, until the necessary quantity is combined. We have often met with the same difficulty, but have continued daily to add the solution of salt until the evaporation from the mass enables it to receive the necessary quantity. The undissolved salt which our friend has added, he will find combined after the mass has been several times turned over; but it will require more time to complete the combination. — *Working Farmer.*

THE TWO SYSTEMS OF FARMING.

Under a low standard of agriculture, the object of the farmer is to collect the natural produce of the soil with the expenditure of as little money or labor as possible. But under a high standard, he does not grudge expense of labor, nor of manure, in order to obtain a proportionate increase of produce; and he studies to obtain this by cultivating crops congenial to the soil, by growing them in such order that its natural powers shall be turned to the best advantage. — *Wisconsin Farmer.*

CURE FOR DISTEMPER IN DOGS.

Take as much turpeth mineral as will lie on a five-penny bit, make it in a pill or two, with butter, and give the dog: it will cause him to vomit, and cure him. This I have done often, and never knew it to fail. — *American Farmer.*

PROPAGATION OF DISEASE IN HORSES.

Mr. Skinner, in his Journal, quotes authorities to show the truth of hereditary diseases among horses as well as among men. He says —

"It having been clearly shown, not only in theory, but in practice, that the diseases and defects of horses are for the most part hereditary, we may be induced to give credit to the assertion, that the Arabians, after having brought their breed of horses to the highest pitch of improvement of which they themselves considered them capable, have preserved their chief perfection, namely, great endurance of fatigue, with highly organized matter, and natural soundness of limb — by restricting the use of stallions until approved of by a public inspector of them. Indeed, in several European states, similar precautions are taken, and stallions are provided by their governments, for the use of farmers and others who breed horses; and care is taken in the selection of them to avoid all such as have proved naturally unsound, or been affected by any disease, the influence of which may be hereditary. No part of veterinary pathology is more interesting than that which relates to the hereditableness of disease; and, as an eminent French writer (Professor Dupuy) on the veterinary art observes, 'That person will render an important service to his country, and to rural economy in general, who may show, by incontestable evidence, that those organic diseases (farcy and glanders) are very often hereditary. I knew a mare whose body, on dissection presented every appearance of glanders: her filly died at the age of four and a half years, of the same tuberculous affection. The other offspring of this mare inherited her particular conformation, and her propensities to bite and kick.' The professor produces three similar instances of inherited disease, all of which, he says, were too evident and well marked to admit the possibility of any serious mistake, and were attested by the professors of the Veterinary School at Alford. Similar observations follow in relation to the diseases of oxen, cows, sheep, and swine, as also of ophthalmia in horses, all of which are transmitted from one generation to another, the effect of hereditary influence. 'These considerations, continues the professor, 'to us are of the greatest moment, since we have it in our power, by coupling and crossing well-known breeds, to lessen the number of animals predisposed to these diseases.' Acting up to such ideas, our line of conduct is marked out. We must banish from our establishments designed to improve the breed, such animals as show any signs of tuberculous disease, or any analogous affection. Above all, no stallion should be allowed to remain in a wet or cold situation, in consequence of the evils likely to result therefrom."

REMARKS BY EDITOR N. E. FARMER. — It is a well-established law of nature that like produces like; and any animal or vegetable that is diseased, is liable to transmit that disease to its descendant. This important fact should always be borne in mind, for with a little care to this subject, sound animals and plants may be as easily propagated as defective ones, and every one must acknowledge that there is a vast difference in their value.

WIND-GALLS.

Horses which are subjected to hard service are liable to have what are called *wind-galls* on those parts of the limbs which are most exposed, especially about the hough and upper pastern joints. The affection is an undue enlargement of little bags or sacs which are situated in the parts named. By the strain-

ing of the tendons, these sacs become injured, and sometimes take on inflammation, and become hard. Youatt says, "The farriers used to suppose that they contained wind; hence their name *wind-galls*; and hence the practice of opening them, by which dreadful inflammation has often been produced, and many a valuable horse destroyed." As to treatment, the author just referred to directs, "If the tumors are numerous and large, and seem to impede the motion of the limb, they may be attacked first by bandage. The roller should be of flannel, and soft pads on each side of the enlargements, and bound down tightly upon them. The bandage may be wetted with a lotion composed of three parts vinegar to one of spirits of wine. The wind-gall will often diminish or disappear by this treatment, but will too frequently return when the horse is again hardly worked. A blister is a more effectual remedy, and firing still more certain, if the tumors be sufficiently large and annoying to justify our having recourse to measures so severe. In bad cases, the cautery is the only cure, for it will not only effect the immediate absorption of the fluid, and the reduction of the swelling, but, by contracting the skin, will act as a permanent bandage, and therefore prevent the reappearance of the tumor." — *American Farmer*.

CURE FOR BONE SPAVIN.

Take oil of amber, oil of spike, and spirits of turpentine, equal parts, say four ounces; warm them on some warm ashes with no blaze, and apply them as warm as you can to the spavin by pouring it on and rubbing it in well with the ball of your thumb; (first shave the hair off of the spavin;) this must be repeated twice a day for two days, when, if well rubbed, it will become a running sore; wet a sponge with the substance, and apply it twice a day for three days, then stop for three days, and if the spavin has not disappeared, repeat the course three days longer, let the sore heal, wash it with plantain leaf scalded and suds from Castile soap; as soon as the sore is closed, commence rubbing with lard or rank butter, and the spavin will disappear, and the hair will grow in the same color. — *Ibid*.

A CHARACTERISTIC OF THE AGE.

When we look abroad upon the world, and scan its most striking features, and compare them with the features of the days gone by, we cannot fail to perceive that there is one trait at least which eminently characterizes and distinguishes the present from all others that have preceded it, we refer to the spirit of rapidity in locomotion. It was the boast of Caesar that his legions in one season had conquered in Asia and Europe; but in the same space of time which Caesar's legions took to come from Rome to Albion's coast, an army could now be transported from the Thames to the Indus, or across the wide Atlantic — that ocean which to the ancients was a vast unknown. History records with pride the feats of swiftness performed by their sure-footed "steeds of metal true;" but what is the speed of the swiftest animal in animated nature, in comparison with the swift-winged messenger that travels along the copper wire of the telegraph, or the disk-footed courser that pants unwearied on his iron-girdled course from lake to ocean? Last year, our country was thrilled by a famous horse on Long Island trotting one hundred miles in ten hours, and fifteen years ago Mr. Osbaldistone, in England, astonished the world by riding two hundred miles in ten hours, by relays of famous racers; but what are all these feats in comparison with the feats of a few iron wheels driven with expanded water? The crippled soldier, whose luckless

limbs were left on some well-fought field, can, by the aid of science, travel as quietly as if sitting at his own fire-side, from Albany to Buffalo during the time the swiftest-footed racer could gallop one fourth of the distance. We may boast of "the speed of the Arab steed," and we may admire the eagle in his flight through the air; but neither the race of the one, nor the flight of the other, has so much poetic inspiration in it as the locomotive that fleets faster than the whirlwind, or the steamship that marches proudly against wind and wave over the stormy deep. — *Scientific American.*

WHAT CONSTITUTES A PERFECT HOME?

That which combines the most facilities for enjoyment, with more especial reference to family comforts. This is the sole end of having a dwelling, and all we can rationally seek in one. How, then, can this end be secured? This inquiry we hope to answer throughout the progress of the volume. Meanwhile, let us consider a few of the grand principles which govern this matter.

To enclose space is the first and main object in building. This is done by *making walls*; and we will call roof, ceiling, floors, doors, etc., walls.

Strength and tightness are also required, the former to resist blasts, and the latter to exclude rains and colds. Light, ventilation, cleanliness, dryness, etc., embrace other objects; but of these as we proceed.

Rooms, convenient, easy of access, etc., should also be secured, and especially such an arrangement of them as shall facilitate "housework." Every house-keeper knows that it requires twice the labor to do a given amount of work in some houses that it does in others. Now, to have the rooms and their accompaniments so constructed as to have every thing handy and convenient, — a place for every thing and every thing in its place, — is indeed a great desideratum. How much fretfulness and ill-temper an unhandy house occasions.

Warmth, easy, cheap, and complete, is also a great desideratum, because so promotive of comfort. What pleasure can be taken in a barn of a house, all open, and the chilling winds perpetually pouring in through a thousand crevices, so that you freeze one side while you roast the other — every thing frozen in winter, or your sleeping-rooms small, low, close, and right under a thin roof, so that you swelter the fore part of an August night, and perhaps catch a death-cold towards morning — and one or another of the family sick most of the time, or else now and then falling into premature graves?

Cheapness is another matter, to some, and especially to the poor, of great importance. Indeed, all should inquire how they can build the best house with the least means. Not that I would stint a house, or sacrifice utility on the altar of cheapness; for, as already stated, I believe in appropriating no considerable a portion of our earnings to improving home; but be the sum thus appropriated greater or smaller, all should strive to make the most of it, that is, to combine as many comforts for their money as possible. However rich a builder may be, he should waste nothing, but, after disbursing every dollar wisely and economically, should give the balance to some poor neighbor. Yet time and money are wisely spent which add to the real solid pleasures of home and family. All of us shamefully neglect this essential point. We carelessly tolerate evils and miseries by the score, for days and years, which a few hours or dollars would remove. We fail to give our domiciles their due proportion of our time and funds. No matter what a house does cost, so that it is good. Better spend our funds for this than for thousands of those things on which we now well nigh waste them.

Let others spend their money for balls, fashions, etc., but let me spend mine for a real family homestead; and then let me, year by year, spend no small part of my income in adorning and improving it, till, in the decline of life, I shall have a perfect home for myself and family, surrounded with every comfort, my land rich, my trees annually loaded with every variety of the choicest fruits, and the whole supplied with every thing that can conduce to beauty, utility, and comfort. Let every one procure as good a house as he is able — even better than most think they can afford, though at the sacrifice of many other things — but build as cheap as possible for the value.

Yet there are few things on which men can, and do, literally squander money as foolishly as in building. To build without a plan, or with a crude one, and then to alter this, and patch on that, is as wrong as it is imbecile. See how unwise C——, of Boston, is, in so often altering and remodelling his house. Get all ready before you lay the first stone. Especially mature your plan. Know just what you want, and how you want it, and then how to do it. Leave less to the mechanic, for he may care less about your house than your money, and knowingly omit some good, or commit some error, just to get pay for altering it, and then excuse it by alleging that he knew nothing of how you wanted it done. Or he may propose some costly addition, of little real value, just to get a chance to put money in his pockets. I boss my own buildings, and will show you in this work how to boss yours. Besides, the judgment of carpenters is sometimes inferior to that of common-sense men, because the former are hide-bound in the old way, while the views of the latter are oftener allowed to act untrammelled.

O. S. FOWLER.

HORTICULTURE.

Horticulture, said Mr. Speaker Winthrop, on a late occasion, in its most comprehensive sense, is emphatically the fine art of common life. It is eminently a republican fine art. It distributes its productions with equal hand to the rich and poor. Its implements may be wielded by every arm, and its results appreciated by every eye. It decorates the dwelling of the humblest laborer with undoubted originals by the oldest masters, and places within his view fruit such as Van Huysen never painted, and landscapes such as Poussin could only copy.

Farms in the neighborhood of Herrmann, Gasconade county, in this State, have risen very much lately, in consequence of the increased cultivation of the vine. A Mr. Poeschel, possessor of a vineyard not quite an acre in extent, and planted with the Catawba grape in the spring of 1845, made from it this year one thousand gallons of wine. The value of the whole produce was one thousand and seven hundred dollars. — *Miner's Prospect.*

PROTECT YOUR VINES.

We are informed, by a gentleman of this town, says the Lynn News, of an experiment made by him, last year, upon his squash-vines, which proved successful in clearing off the bugs. He strewed on the vines the bran of pepper, which may be obtained at any of the spice mills where pepper is ground. Every one who has a garden will appreciate the value of a remedy so cheap and simple, and give it a trial. We should like to have those who try the experiment give us the result, if they find it successful.

The finer the seed to be sown, the finer should the soil be made which is to receive it.

Domestic Department.

MAKING AND PRESERVING BUTTER. — The following article was communicated to the Farmer's Monthly Visitor, by a lady of the United Society at Canterbury, N. H. The excellent economy of this society in every department of industry, gives an importance to their recommendations.

The pans or other vessels in which the milk is to be set should be made perfectly sweet by scalding previous to putting the milk into them. A room in the basement story, where the air will circulate freely, is preferable to a cellar (when the weather will admit of it) for setting milk. Forty-eight hours is a sufficient length of time to raise cream for making butter to keep through the winter season.

After this cream is taken off, the milk may stand the same length of time, but the cream that rises after the first forty-eight hours will not make butter so palatable as the first which rises, and should be churned separate.

As soon as the cream is taken from the milk, it should be put into a tin pail and set into a kettle of scalding water, taking care to stir the cream often, otherwise it will turn oily at the top; it should remain in the kettle till the cream is scalding hot, being particular to place it in a tub of cold water immediately. Stir it often, till it is nearly or quite cold: if it remains long after hot, it will be injured much. It will be necessary to change the water once or twice before the cream can be perfectly cold. It may then be kept three or four days before churning without injury.

After churning, the buttermilk should be partially worked out: then add one and one half ounces of salt to one pound of butter. It may then be covered tight and stand till the following day; then work it over again, taking great care to work out every particle of buttermilk, which will prevent the butter from growing rancid by age. It may then be formed into cakes, or packed solid in a cask, which should be perfectly sweet and well dried.

The inside should be sprinkled and a little fine salt rubbed thereon. After the cask is filled, dip a cloth in melted butter, and spread it snugly over the top — cover it with fine salt, and fasten up the cask sufficiently tight to keep out the air: it should then be set in a cool place, to remain through the winter.

N. B. A cask made of red oak staves is preferable to any other for preserving the original sweetness of butter.

It will add to the flavor of butter to work in a little sugar at the last working over; say, a table spoonful to four or five pounds of butter.

LAYERING. — Very many lovers of flowers have been discouraged from endeavoring to keep some of the most beautiful and easily managed plants by want of a little knowledge of the art of propagation. They find their plants to flourish and blossom well for a season or two; they are delighted with their fragrance or their beauty, but the time for disappointment and regret comes on apace. Perhaps the seeds do not ripen — most double flowers will not produce seeds at all — probably, even when ripe seeds are obtained and sown, after bestowing much attention and care upon the younglings, and watching anxiously, for months, until they come to maturity and expand into bloom, it is found that very inferior varieties have been produced, having little resemblance to the prized parent plant, and ill-rewarding the labor expended. The poor, inexperienced, and mortified florist next undertakes to raise fresh plants by pip-

ings, cuttings, or slips. Raise new plants he must, if he wishes to keep up his stock; for "all that live must die," and the most robust constitution is no security against an early death. The new attempt will in some instances succeed, and if it does, the original variety is perpetuated, with all its characteristics. But one who does not possess the whole paraphernalia of floriculture, — the stove, the greenhouse, the close frame, the bottom heat, the bell glasses, the mattings and shades, — or one who, possessing some of them, knows not how to use them properly, will fail much oftener than he will succeed.

There is, however, one method of propagation, in which, as respects a great number of species, the most ignorant may with a little care be entirely successful.

It is equally effective for Sweet Williams, Chinese pinks, and indeed for the whole genus *dianthus* and innumerable others.

The branch of which the layer is to be made, should be prepared by cutting off the leaves from that part which is to be covered with earth. If the plant is of woody texture, a ring of the bark about one eighth of an inch broad, should be cut off also. If the branch belongs to a jointed plant, like the carnation, &c., a sharp penknife should be passed through its centre, so as to split it at the joint, and for about a half inch above and below it. This ringing or incision is useful, as it partially interrupts the flow of the sap, arresting a portion of it at the point from which the young roots are to spring. A small portion of the earth should then be removed, and the prepared branch should be secured in the cavity by a hooked peg. It should then be covered with light, rich mould, not that removed, from one to two inches deep. The depth should vary according to the character of the plant, the more succulent requiring the shallower covering, and the more woody and dry the deeper. When the layers have struck root, they should be severed from the parent plant, and potted, or planted in the garden by themselves. Most of our frequent flowering garden roses, grape-vines, gooseberry bushes, snowballs, honeysuckles, and shrubbery in general, may, by this means, be readily and easily propagated to almost any extent; and if the layering be done soon after the full blooming of the plant is nearly over, the effect upon the stock is beneficial rather than injurious. — *Sartain's Magazine*.

Boys' Department.

NO WEEDS. — Boys who have a little spot of land to cultivate as their own, should be careful and allow no weeds to grow on it. In most cases, boys have small farms, and they should be careful to keep them well cultivated and in the neatest condition. "He that is faithful over a few things shall be made lord over many."

THE BOY THAT SMOKES. — What shall we say of the boy that smokes? Shall we pronounce any judgment upon him? Shall we say that he is acquiring an evil habit? that he is becoming a slave to a master, who, by and by, will be very cruel to him; that he is on the high road to rowdyism; that he is beginning to be profligate with his money, &c.? O that this were the worst! What say the druggists, who know the stimulating effects of tobacco? One and all, that it often proves the first step to drunkenness. No young man, who uses tobacco, in any shape whatever, is or can be safe. He is apt to be thirsty, and water never satisfies. Tobacco-smoking

feeds the love of strong drinks in two ways — first, by creating a morbid thirst; and second, by impairing the appetite for food, and indirectly encouraging him who uses it to seek for that strength which food should give him, in the use of extra stimulus. Let the friends of temperance — temperance men above all the rest — beware of tobacco in every form. 'Take care, then, temperance boys, how you get that filthy thing, a cigar, in your mouths. Abhor and detest it, for it is poison and death.' — *Well-Spring*.

Health.

HOW TO PRESERVE HEALTH. — "Keep the bowels open, the feet warm, the head cool, and a fig for the physicians."

"Eat in measure, and defy the doctor."

Rise early in the morning, wash the whole body, that you may be clean, vigorous, elastic, and joyous. Take a draught of pure water, and then walk, ride, exercise, or, better, labor in the open air, at least for a short time. Afterwards go to a plain meal of brown bread, milk, potatoes, and the like healthful articles, such as a king should be thankful to partake of. Do not eat in a hurry; better to take water, and omit the meal altogether, than eat in haste. "Haste makes waste," here as elsewhere; waste, not only of the food, but of that which is far more important, of that which is better than riches and fine gold — *health*.

After your meal, go not too rapidly to work — neither with the head nor the hand. It is better not to read immediately after eating. The literary or sedentary man should not go immediately to his books. Moderate exercise (not in the hot sun) it would be well to practise. Moderate exercise (physical) promotes digestion: this is the rule. And in all cases remember the good old maxim, "*Eat to live, not live to eat.*"

If you would "keep the bowels open, the feet warm, and the head cool," avoid superfine articles of every kind; avoid all rich, and concentrated, and stimulating articles; avoid especially tea and coffee, which are always astringent, binding, to the mucous membrane internally, and exert also a pernicious effect on the nervous system. Especially avoid tobacco, the most hateful of all drugs. Avoid laziness above all things. Let *temperance* and *moderation* be the watchwords in all you do. Thus may you insure that best of earthly blessings — *firm and enduring health*. — *Water-Cure Journal*.

Mechanics' Department, Arts, &c.

ELASTICITY, OR SPRING TEMPER OF METALS. — The properties of metals are but just beginning to be known. This remark may startle some of the old workers in metals who conceive that they know all about them. They may indeed know all that, in the present state of knowledge, in regard to them, can be known. But with all their knowledge they will confess that there are many things in reference to the natures and properties of the several metals, whether in their simple states, or when alloyed with other metals, which they cannot explain, but would like to know. An expert worker of iron once said to us, in reference to some operations in working it in various conditions, "There is a great mystery, sir, in iron;" and then went on to state several things, the causes of which he could not explain. "Your 'mystery,' we answered, is only another word for ignorance. Instead of there being a mystery in iron,

there is ignorance in yourself. There are causes for all the appearances and changes you speak of under the operations you mention; but being ignorant of them, you consider them mysteries. They will one day be discovered, and then the mysteries will vanish."

There are many things yet to be discovered, not only in the natures of the several simple metals, but also in their state of combination with other metals. One characteristic, not much understood, is the nature and cause of elasticity of metals. Some metals can be made highly elastic by being tempered at a given degree of heat. Others, again, which, in a separate state, are perfectly non-elastic, when alloyed together become highly elastic: thus, fifteen parts of pure gold and one part of platinum, the platinum added when the gold is perfectly melted, combine intimately, and become remarkably elastic, although before their union they exhibit nothing of the kind.

We perceive that the latest emission of those neat mantle clocks so abundantly made in Connecticut, instead of weights, have a spiral spring, like the main-spring of a watch, which moves the wheels, a week or more, without being wound oftener than that. These springs are made of some sort of alloy resembling brass. No doubt many other combinations of metals might be made that would exhibit similar properties, and which will form a cheap and ready mode of obtaining springs.

The combinations of the several metals might be made almost *ad infinitum*, and this branch of metallurgy affords a fine field to those who have the means and the time and desire to pursue it. Indeed, as we said in the beginning, the whole science, art, and practice of metallurgy is in its infancy, although metals have been wrought ever since the days of Tubal Cain. The different societies for encouraging scientific researches, and even government itself, ought to promote, in every prudent way, these researches. — *Maine Farmer*.

RURAL LIFE.

This primeval employment of man is the most healthful of all occupations; healthful for the body, the mind, and the soul. What other pursuit by which men obtain honest bread affords such vigorous training for the physical powers, such various and extensive ranges of mental exercises?

And where may the moral nature of man be preserved unsullied from vice, and grow, and expand more, than amid rural scenes and beneath the purest air of heaven?

The farmer's life is not scratch, scratch, with the pen — rap, rap, with the hammer — nor an everlasting unpacking and repacking of the product of another's labor. He walks forth under the open sky, his broad acres spread out beneath his feet; the blue concave, sunlit or starlit, or shrouded in clouds, is still above him. Health claims him as her favorite child, and the glorious sun loves to kiss a cheek that is not ashamed to wear the ruddy imprint of such affection. Nature's own inimitable music of babbling brooks, birds, breeze, or rustling foliage, enters his ear on its glad mission to his heart. He listens to instructive voices, continually speaking from the universe around him. His eye gathers truth from unwritten pages of wisdom, every where open before him. Each day, each month, season after season, year after year, these teachings are given to him, infinite in variety, and endless in extent.

When, toward the close of a sultry day, the summer's blessing comes pouring down, and as, in the beautiful poetry of the sacred volume, "the trees of the field clap their hands," and "the valley, covered with corn, shout for joy," the farmer, retiring from his labors to the friendly shelter of his cottage roof,

improves his leisure hours with the treasures of written wisdom. So, too, while his fields are sleeping beneath frost and snow, what profession affords more available opportunities for self-culture? Where was the lyric poetry composed that makes Scotland prouder of her Burns than of all her ancient race of warlike kings? Was it not between the handles of the Moss-gill plough?

Of all the employments that busy men here in this present state of existence, the cultivation of the earth is distinguished as affording the best opportunities for an extended range of mental discipline, for advancing in true refinement, for social, rural, and religious improvement!

And now, last of all, agriculture shall put forth her highest claim. Of all men, the farmer alone walks in the path where God himself first took the created image by the hand and led the way "to dress and to keep" his garden — the earth! Confiding in God, the husbandman ploughs his fruitful fields, while the birds of spring are singing praises around him. Buoyant with hope, he scatters the seed upon the ground, and gratefully receives the early and the latter rain, coming down from heaven to give the increase. And never did rational man yet apply the sickle to the golden grain without some vague idea of gratitude to God, the Giver of harvests!

Indeed, the husbandman's whole life, rightly viewed, is a "walking with God." And though thousands may not often think of this, and but a few, even in any small degree, appreciate it as they ought, nevertheless the assertion claims to be true.

GEORGE JAQUES.

WORCESTER, MASS., Dec. 6, 1848.

Downing's Horticulturist.

ORNAMENTAL TREES.

One of the most popular lady writers, who, judging from what she has written, has lived among plain farmers in the western country, has said that most settlers in a new country consider a tree as their natural enemy. This is true, we confess, to some extent. The earlier settlers, in clearing their fields, generally slay every thing before them; for if a tree should occasionally be left for shade or ornament, it would be saved with difficulty during the seething fires that follow afterwards. But when the farmer removes his old log-house to give place for his new mansion, neatly painted and adorned with bright green shutters, then the dock thistle, the briars, and brush-heaps should be routed from his door-yard, and some kind of ornamental shrubbery planted instead. Every portion of our country has some such suitable trees in ligions to the soil. The maple and locust are very hardy trees, and every where obtained in our latitude. The lilac is pretty, and dozens of other kinds procured with little trouble. By way of variety, and to enliven the scene a little, a few evergreens should be interspersed. The balsam fir is one of the most beautiful of this class. Evergreens, if transplanted, are not apt to live unless extra care is taken. The surest way is to dig them with as much earth adhering to the roots as possible, and place them immediately in an old tub, half-barrel, or something of the kind, then filling it up with the same earth from which the shrub was taken, and thus removed home and placed tub and all in the holes prepared for them. Afterwards the tub or box containing them can be knocked to pieces, that the roots may spread. Don't forget to water the plants occasionally if the weather should be dry. The trees should be placed on the outer margin of shrubberies for their beauty and protection.

E. G.

WAKEMAN, OHIO, 1849.

— *Philadelphia Dollar Newspaper.*

SOILING.

Soiling, in this country, has been adopted only to a limited extent. The "Zoarites," however, a religious sect of Germans, located on the banks of the Muskingum River, in the state of Ohio, keep their cows almost constantly in their stalls, feeding them on the offal of the dairy, roots, apples, and hay. They are said to observe great care and circumspection in the treatment of their animals, and by them are abundantly remunerated for their extra care and pains. Their stalls are thoroughly washed daily, and the water used for this purpose is carefully collected in reservoirs constructed expressly for the purpose, and applied systematically, in the form of liquid manure, to their hothouse and garden products.

In a late communication to the British Board of Agriculture, it is stated that thirty cows, one bull, four calves, and five horses, were fed through the summer from fifteen acres of clover, sown the preceding year. The labor of two men and two women was sufficient to tend them, and the net produce of the season, in butter, from June to October, was nineteen pounds and ten shillings, nearly ninety dollars, from each cow. In this country, where, from the greater value of labor, the expense of tending would be considerably increased, the profits of soiling would obviously be less; but there are nevertheless situations and circumstances of frequent occurrence, which would render the adoption of this system, on a limited scale, an enterprise that would be attended with the most gratifying results. Sowing corn — the common Indian, or the southern horse-tooth variety — broadcast, and feeding the crop, green, to stock, especially to milch cows, during a part of the season, is a practice now becoming quite common. Animals in milk, so fed, will, if properly attended in other respects, greatly increase the quantity of their milk, while at the same time there is also effected, as a natural consequence, a corresponding improvement in its quality. This subject is, I think, eminently deserving the attention of farmers generally.

AGRICOLA.

LOWER DUBLIN, May 30, 1849.

— *Germantown Telegraph.*

THE COLOR OF HOUSES.

The practice of painting white in all cases has been rapidly giving way for some years; and a great variety of colors are now used instead. Mr. Ranlett in his *Architect* has some remarks on the subject which are of value.

"The interior of a house should always be painted of a warm, neutral tint. Pure white is too cold and cheerless for a dwelling-room, and is, moreover, so liable to stains, that its appearance of purity and cleanliness, which is a great recommendation with neat housekeepers, very soon wears off.

"The purity of our atmosphere, and the absence of coal smoke, admit of houses being painted a pure white; and where lead and oil are alone used in the open air, the color will grow whiter from exposure; but in the interior of a house it will become a dingy yellow from being deprived of light and air. White lead improves by age, and should not be used for wood work unless at least a year old; linseed oil also becomes purer and better from age, and should be at least two years manufactured before used. Much harm results from the employment of incompetent workmen in the painting of houses, as from their inexperience in mixing paints, and their inability to distinguish between good and bad materials, the employer often throws away his money, and defaces the appearance of his house in the attempt to beautify it by a coat of paint.

"In painting a house any light color, particular care should be taken to *kill* the knots in pine wood, as it is technically termed, or the effects of the first painting will be greatly marred. The best method of destroying the turpentine contained in pine knots is by spreading upon them freshly-slaked lime, which will effectually burn it out. After this has been done the knots must be covered with a sizing, composed of red and white lead and glue.

"In painting the outside of a house, there should be no turpentine mixed with the paint, excepting in the case of white paint, and then only in the last coat: not more than one part turpentine to four parts oil should be used, as oil has a tendency to discolor white.

"White lead forms the basis of all pigments for house paintings excepting black, which is generally composed of lampblack; but a new mineral substance has recently been discovered in New Jersey, which forms a beautiful jet black, and resists the action of the atmosphere and water better than any paint yet made. It has already been extensively used on ships, and will probably entirely displace every other kind of black paint before long. Not much black paint is ever used on houses, although it is most extensively employed for fences and iron work; and as it is important to use a material that will resist the action of the atmosphere in ornamental iron work, which is so soon destroyed by rust, the discovery of this new mineral pigment is a matter of importance to builders. We have seen some specimens of this new paint, which were remarkable for brilliancy of color and hardness of surface. A steam mill has been erected for manufacturing this article, and we shall be able to give more definite information respecting it before we conclude our remarks upon this subject.

"The colors and tints proper for house painting, such as browns, drabs, yellows, pea-green, grays, and imitations of stone color, are made by mixing, with white lead and linseed oil, the following colors, which should first be finely ground in oil:—

Drabs—Chrome yellow, lampblack, and red; or Venetian red and burnt umber, with white.

Brown Stone color—Spanish brown, chrome yellow, and lampblack, with white.

Gray Stone—Lampblack and Venetian red, with white.

French Gray—Indian red, Chinese blue, and ivory black, with white.

Sage color—Raw umber, Prussian blue, and Venetian red, with white.

Slats color—Black and Venetian red, with white.

Dark Blue—Prussian blue with white.

Sky Blue—Ultramarine or Prussian blue, with white.

Violet—Vermilion, blue, and black, with white.

Lilac—Deep black, ultramarine, and crimson lake, or Indian red, with white.

Peach Blossom—Carmine and ultramarine, with white.

Rose color—Crimson lake and vermilion, with white.

Salm color—Chrome yellow and Indian red or burnt sienna, with white.

Straw color—Yellow ochre and orange chrome, with white.

Buff color—Venetian red and yellow ochre, with white.

Pearl White—Ultramarine, crimson lake, and ivory black, with white.

French White—Indian red, ivory black, Chinese blue, or ultramarine, with white.

Fawn color—Yellow ochre and Spanish brown; or Venetian red, blue and umber, with white.

Pea Green—Yellow and blue; or chrome green, with white.

Green—Prussian blue and chrome yellow.

Olive Green—Chrome yellow and black; or raw umber and black.

Bronze Green—Black and green; or chrome yellow and black.

Orange—Chrome yellow and vermilion.

Chocolate—Spanish brown and black; or Venetian red and black.

"There are various other modes of producing the above shades, but simplicity and economy are the objects we have in view. The gradation of shades produced by a varied portion of these colors is almost indefinite.

"Small quantities of the coloring matter should first be added to the lead, and continued till the right shade is procured. Enough should be mixed at one time to cover all the woodwork required with one coat."—*Prairie Farmer*.

PUT IN THE ROOTS.

We have frequently spoken of late respecting the unaccountable neglect of the root culture among the farmers of Maine. There are a few, and those among our best and most prosperous ones, that have not given them up, but rather have increased their culture of carrots and ruta-bagas since the decrease of potatoes. Would it not be well for all to return to it again? A farmer from Springfield, Mass., gives us an account of the mode he adopted in carrot culture, as follows: He ploughed and manured his land early, and let it be until late, so that all the weeds should spring up that were near the surface. He then soaked his carrot seed until it began to sprout. The land was then cultivated and harrowed over—all the weeds of course destroyed, and the surface made smooth. The carrot seed was then rolled in plaster, and made dry, and then sowed by a seed-sower.

In this way, the carrots soon came up, and, getting the start of the weeds, were easily weeded and taken care of during the rest of the season.

We have always been an advocate for the root culture. They are so grateful to cattle during our long winters, that it is an object to have a supply for them. They conduce to the health of the animals, and they should have them, even if you should have an abundance of corn and oil-cake to give them besides. Some farmers say to us that they find it more profitable to feed corn to their cattle, as it is more nutritive and fattening. We grant it. But at the same time, your corn itself could be rendered still more serviceable to your cattle, if they had a fair supply of heavy food in the shape of carrots, sugar beets, and ruta-bagas, to fill them out and give them what physiologists call the "stimulus of distention."

Some of our acquaintances are trying parsnips for a field crop. The following scrap in regard to carrots we find in Professor Mapes's Working Farmer: "Vauquelin and Braconnet discovered that carrots contained large quantities of pectic acid, and that this acid had the power of gelatinizing water in which sugar or its ultimates were held in solution. It is well known that food in a gelatinized form is more easily digested by all animals than when not so gelatinized; and probably to this fact may be attributed, in part, the great superiority of carrots as food for cattle of all kinds.

No winter food will enable cows to give so good milk and yield so good butter as carrots. For horses they are nearly equal to the same bulk of oats; and for working cattle, carrots may be occasionally substituted for ground feed when mixed with cut hay.

Grated carrot worked with winter-made butter, after it leaves the churn, gives it the flavor of good summer butter.—*Maine Farmer*.

NOTICES OF PUBLICATIONS.

Hovey's Magazine of Horticulture.—The June number contains very interesting articles. It contains a correspondence, communicated by General Dearborn, embracing important facts in relation to the culture of tropical fruits in Florida. When a spirit of improvement shall have pervaded the south as it does other sections of the country, we shall, in our vast country, produce, in perfection, the best fruits of almost every region of the world. We commend this Magazine to those who would have an able work on the general subjects of horticulture and botany.

The Plough, the Loom, and the Anvil, by the veteran editor, J. S. Skinner, has just concluded its first volume. It is a very able and interesting work.

From B. P. Johnson, Esq., we have received several valuable works from the Transactions of the New York State Agricultural Society.

The American Farmer will commence a new volume, July 1st. It is among the most practical and valuable journals. Baltimore, published by A. Sands, at \$1 per year. Monthly, 32 pp. 8vo.

The semiannual exhibition of the Massachusetts Horticultural Society, announced on our 203th page, is postponed till Monday, the 25th inst., to conform to the season of roses.

A NORTH-WESTERN HORTICULTURAL CONVENTION.

A horticultural convention, to be held at Chicago this fall, is proposed by Edson Harkness, of Illinois, in the *May Prairie Farmer*, and seconded by others.

Such an organization, if taken hold of with spirit by our numerous nursery-men and fruit-growers, could not fail to be exceedingly useful and interesting. Something of the kind we must have soon, or be quite behind our sister states; and not only so, but in the mean time we must grope our way, "solitary and alone," through the unexplored recesses of western pomology, with nothing but the light of our individual wits, and the scarce-risen, distant eastern suns to guide us! We had much better, it seems to me, commence now in the infancy of fruit culture, and so save the innumerable and sometimes almost ineradicable errors that creep in where a correct standard is not early reared. What say our Wisconsin fruit-growers?—*Wisconsin Farmer*.

COWS WORKED AS OXEN.

A correspondent of the *Southern Cultivator* says, "I have worked cows in harness, not under the yoke, without detriment in any respect—on the contrary their calves were superior to the rest of the stock,—due of course to the extra feed and attention the cows received. I should like to see this practice extended—for many of the poorer class have no other animal power to aid them in their farming operations."—*Valley Farmer*.

Rochester papers say that the wheat in that region is now looking finely, and that there is a prospect of an excellent yield.

A WORLD OF LOVE AT HOME.

BY J. J. REYNOLDS.

The earth hath treasures fair and bright,
Deep buried in her caves,
And ocean hideth many a gem
With his blue curling waves.
Yet not within her bosom dark,
Or 'neath the dashing foam,
Lies there a treasure equalling
A world of love at home.

True sterling happiness and joy
Are not with gold allied;
Nor can it yield a pleasure like
A merry fireside.
I envy not the man who dwells
In stately hall or dome,
If 'mid his splendor he hath not
A world of love at home.

The friends whom time hath proved sincere,
'Tis they alone can bring
A sure relief to hearts that droop
'Neath sorrow's heavy wing.
Though care and trouble may be mine,
As down life's path I roam,
I'll heed them not while still I have
A world of love at home.

THE OLIO.

"What are you going to give me for a Christmas present?" remarked a gay damsel to us the other day. We meekly replied, that we had nothing to offer but our humble self.

"The smallest favors gratefully received," was the merry response.

"Come, and away to the meadows!"

"Old boys have their playthings as well as young ones; the difference is only in the price."

She is like a bee, with honey in its mouth, but a sting in its tail.

Cato said, "The best way to keep good acts in memory, is to refresh them with new."

A bad workman quarrels with his tools.

Men are frequently like tea—the real strength and goodness is not properly drawn out of them until they have been a short time in hot water.

"I am afraid that I shall come to want," said an old lady to a young gentleman. "I have come to want already," was the reply. "I want your daughter?"

"Mankind are very odd creatures. One half censure what they practise, and the other half practise what they censure. The rest always say and do as they ought."—*Poor Richard*.

TERMS.—THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.

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DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, JULY 7, 1849.

NO. 15.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

LATE APPLES.

To the fruit-grower, the subject of late apples is of much interest. We have no apples in the market; the old ones are gone, and the new only partially grown. The first that we get from the south are worthless, as they are picked green, and become prematurely ripened on the way, or rather they begin to grow soft as they are tending to decay. They are worse than useless, producing diseases. Ripe fruit is healthful, but green is destructive to health. Dried apple is now used, but it is a poor substitute for fresh apples, as to its palatableness, and some suppose that it is not favorable to health.

This is the season for small fruits, such as strawberries, cherries, gooseberries, currants; but though of the highest excellence, they are transient and uncertain, from season or weather, and do not supply the place of the apple, as a staple article for pies, puddings, &c.

Any information on late apples will be acceptable.

What is the best late apple? We name this subject for consideration, hoping that it will claim more attention, not with a view of giving definite information, as we cannot do it without further experience; and there is not in the country a man who can answer this question satisfactorily, for we have several late apples that have not been well tested as to climate, bearing, fairness, &c.

BALDWIN.—This apple, which ranks higher than any other as a winter apple in this section, combining numerous excellent properties, generally begins to fall about the first of March, growing mealy at the core; though it continues tolerably good a month or two longer. And sometimes it sells the latter part of May at five dollars per barrel, which is far more than it is worth, as it has a fair appearance externally when its good properties are gone.

ROXBURY RUSSET.—This is the principal late apple now cultivated in New England, also in some sections of the Middle and Western States; yet it is rather difficult to grow, and when well grown, the quality is not very good, either for the table or kitchen. It is only a moderate grower; it requires a very moist, rich soil; and in an unfavorable season,

it is one of the most liable to fail, sometimes failing totally when most other kinds succeed. As a dessert apple, it is so dry that we seldom eat one, even when no others can be obtained. After cooking this apple, it remains firm and dry. Yet, owing to its keeping later than other apples, it sells well late in spring and in early summer, sometimes keeping till mid-summer. Many who have cultivated this fruit on dry soils, and some on medial soils, have abandoned it.

LADIES' SWEETING.—This is one of the most beautiful of apples, and for the dessert it has no superior. For baking it is pretty good, but rather soft. It promises to be the finest late sweetening, in climates to which it is adapted. It originated in New York. Only a few have been raised in New England, and those indicate that it is well adapted to this part of the country. It is now on trial in almost every part of the fruit region. It keeps into May. We now have a fine specimen, which C. Downing, Esq., of Newburgh, N. Y., sent us last fall. The tree is a tolerably good grower, and good bearer.

NORTHERN SPY.—The fame of this apple has spread over the country, and the trees and scions have been disseminated widely. It is large, handsome, excellent, and remarkably hardy; a good grower and bearer. The fruit keeps into summer. In New York, where this fruit is grown, some cultivators say that high culture and close pruning are necessary to bring the fruit up to a fair state; others say that in this respect it is no more difficult to raise than most other kinds. In fact, there has been a difference in opinion between those who have trees to sell, and those who have them not. Man is a creature of circumstances. This fruit will doubtless bear in several places in New England this season.

TEWKSBURY WINTER BLUSH is a beautiful apple, of very small size and ordinary quality, keeping into summer. On account of its late keeping and beauty, it is raised in the state of New York, and exported to England.

NEWTOWN PIPPIN.—This is a far-famed fruit, as it is raised in some favorable locations in New York, under high culture, and a few of the best selected and sent to England, where it brings a great price.

In most all parts of the country, particularly in New England, it fails, as the tree is a slow grower, poor bearer, and the fruit generally knurly, and often inferior in quality. During the last winter and spring, these apples were, in this market, selling at a less price than the Baldwins. We do not believe that the growers of this fruit can show so much profit to the acre, as produced by the Baldwin or Greening.

We have had several specimens of late-keeping apples, sent into our office by dealers who bought them in New York, when purchasing there last fall; but generally they are dry and tough; and the same objections apply to several kinds which we have received from our friends in this section.

The five following kinds we have described in the American Fruit Book; as they are new, but little is known of them.

SHAWMUT. — This is a good apple till the latter part of May, but it is too small for market.

NORFOLK. — A fine pleasant little apple, in August, the second season; a good grower. This is all that we know about it.

ORANGE. — Raised in New Hampshire. This keeps till July. They are rather acid, and excellent for cooking, but rather small for the market.

RED RUSSET. — We had a barrel of this fruit last fall, and we have a little of it left. It keeps about as well as the Roxbury Russet, is of the same size, and much handsomer. It is better than the Roxbury Russet both for cooking and for the dessert. We find it an excellent grower, and it is called a good bearer. Mr. N. P. Morrison, of Somerville, who is distinguished as a successful fruit-grower, gave us a specimen of fruit and some scions, raised in his vicinity, which he thought might be identical with the Red Russet. The fruit appeared precisely the same, but we thought the wood of the scions was different. We shall examine further into this subject. Mr. M. pronounced the Red Russet, or *Baldwin Russet*, as he sometimes called it, a very valuable late-keeping apple.

TABLE GREENING. — We know but little of this fruit, though it originated in our native town, Cornish, Maine. Soon after we became acquainted with it, we left that section, and the old tree died, so that we have had to wait for some young trees to come into bearing. We have had these (raised in Maine) in fine condition the second year, in September. Size, medial; flesh rather hard, but very good for eating and cooking, retaining its qualities remarkably well. It is a good grower, and though our young trees have been rather long in coming into bearing, from causes unknown, the blossom buds which we find on the wood of two years' growth, indicate that it is an early bearer. We have disseminated this variety widely for trial, and we wish for our friends to report when it bears, and is tested in the proper season. At present we recommend it for trial only, though it is very promising, keeping better than any other apple that we ever tried.

Agriculture is the art of arts: without it man would be a savage, and the world a wilderness.

THE PROSPECT FOR FRUIT.

The prospect for fruit has changed greatly since early in June. The sudden and extremely hot weather, with severe drought, cut short the strawberry crop one half. The same causes, with frequent cold north-east winds, greatly injured the cherries, causing large quantities to fall when partially grown. Apples, pears, and plums have been blasted to a great extent, and much injured by insects. On the whole, the fruit crop will be light, and owing to fears of the cholera, the demand is light also.

PRUNING.

Summer pruning is sometimes necessary in order to give form and proper direction to nursery trees, and standard trees may need thinning in order to expose the fruit to light and air. Grape-vines may need thinning, owing to a want of sufficient pruning in the spring or last fall. But in pruning trees thoroughly, particularly if large limbs are to be cut off, it is best to defer the business till the last of July, August, or the former part of September.

Late in summer and early in autumn, the bark does not peel as it does early in the summer, when it often starts from the tree which is injured, by going into trees and stepping on limbs with hard shoes. The sap will ooze out of some trees early in summer, which not only injures them generally, but it often causes the wounded part to decay.

But in late pruning, the wood, when the branch is cut off, becomes sound and well seasoned; and though it may not heal over so readily as when cut early in summer or spring, it remains in a healthy state. This is the main consideration. What would it avail for a surgeon to heal a wound at the surface while it was festering at the bottom?

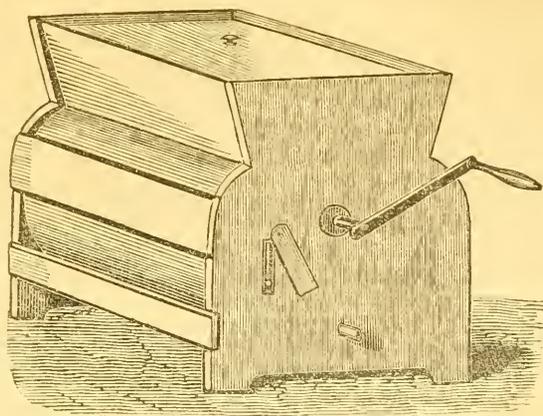
Late in summer and early in fall is not only the most favorable season for the benefit of the trees, but it is a convenient and pleasant season for the operation.

OSAGE ORANGE.

A writer in the Valley Farmer, who dates Iowa, states that the Osage Orange is too tender for that climate, and that otherwise it is not fit for a hedge, as it forms a tree, not a shrub. He says, that a farmer who sowed thirty dollars' worth of seed, three years ago, has only about a dozen plants left, as each year has thinned them off.

A NOBLE SENTIMENT.

The more I am acquainted with agricultural affairs, the better I am pleased with them; inasmuch that I can nowhere find so great satisfaction as in those innocent and useful pursuits. In indulging those feelings, I am led to reflect how much more delightful to an undebauched mind is the task of making improvements on the earth, than all the vain glory which can be acquired from ravaging it by the most uninterrupted career of conquests. — *Washington's Letters to Arthur Young.*



THERMOMETER CHURN.

In churning, it is of great importance to have the cream or milk of a proper temperature, which is about 62 degrees; and this churn affords this advantage with convenience, despatch, and exactness. The churn is encircled with a case for water, by which the desirable temperature may be obtained, and indicated by the thermometer permanently fixed in the end of the churn, where it is not liable to injury.

This churn is simple, light, portable, and durable, easily operated and cleansed. The price is moderate. They are made of various sizes.

POKE ROOT, OR AMERICAN HELLEBORE.

(*Veratrum viride*.)

Panicle downy; partial bractes longer than their pedicles. Segments of the corolla thickened on the inside at base.

A large, green, leafy plant, not uncommon in meadows and swamps. The root is thick and fleshy, its upper portion tunicated, its lower half solid, and sending forth a multitude of large, whitish radicles. The stem is from three to five feet high, roundish, solid, striated, and pubescent. Throughout the greater part of its length, it is closely invested with the sheathing bases of the leaves. The lower leaves are large, from half a foot to a foot long, oval, acuminate, pubescent, strongly plaited and nerved; the lower part of their edges meeting round their stem. The upper leaves become gradually narrower, and the uppermost, which perform the office of bractes, are linear-lanceolate. The flowers are numerous, and distributed in compound racemes, axillary from the upper leaves, and terminal; the whole forming a sort of panicle. Peduncles roundish, downy. Bractes boat-shaped, acuminate, downy. The pedicle of each flower is many times shorter than its bracte. Calix, none. Corolla divided into six green, oval, acute, nerved segments, of which the alternate ones are longest. All the segments are contracted at base into a sort of claw with a thickened or cartilaginous edge. Stamens six with recurved filaments and roundish, two lobed anthers. Germs three, cohering, with acute recurved styles as long as the stamens. A part of the flowers are barren, and have only the rudiments of styles, so that the plant is strictly poly-

amous. The seed-vessel consists of three capsules united together, separating at top and opening on their inner side. Seeds flat, imbricated. — June. — Perennial.

The root of this plant, when taken internally, produces violent effects, and is dangerous in considerable quantities. It is chiefly used in the country as an external application in cutaneous affections. From its great affinity in habit to the *Veratrum album*, a European species, which has lately acquired considerable celebrity as a remedy in gout, the American plant is particularly entitled to the attention of physicians. — *Bigelow's Plants*.

GRASSES.

RIBBON GRASS (*Phalaris Americana*) is the beautiful striped grass occasionally used for garden borders. It has been highly recommended for swamps, to which, if transplanted, it is alleged that it will supersede all other grasses, and afford a fine quality of hay, of an appearance quite different from the upland growth. The writer tried several experiments, both with the seed and roots, on a clay marsh, but without success. Its proper pabulum is probably a rich carbonaceous soil, such as is found in an alluvial swamp or peat bed.

MUSKEET GRASS, found growing on the plains of Mexico and Texas, is considered one of the best of the indigenous grasses. I have seen it growing on the plantations of Louisiana, where it has been successfully transplanted.

GRAMA is held in the highest estimation by the Mexicans. It attains a medium height, and is deemed the most nutritious of the natural grasses in our south-western frontier prairies, in California, and parts of Mexico. It grows on dry, hard, gravelly soils, on side hills, the swells of the prairies, and the gentle elevations in the valleys. The principal value is found in the numerous seeds, which are retained in the pods with great tenacity, long after they are ripe, serving as a luxurious food for all the graminivorous beasts and fowls of the regions where it is known.

BUFFALO GRASS is found intermixed with the grama, and seldom grows more than a few inches in height. It forms a thick, soft herbage, on which the traveller walks with ease, and reposes, when weary, with delight. It yields a rich sustenance to countless herds of wild horses and cattle, buffaloes, deer, and antelopes. — *Allen's American Farm Book*.

LIBRARIES FOR AGRICULTURAL SOCIETIES.

There are many agricultural societies in this country, conducted by very efficient officers, and they are exercising a powerful influence on the cause of improvement in various branches, but we believe that they have generally paid but very little attention to the formation of libraries; therefore we lay the following communication before our readers with much pleasure, knowing full well that the respectable source from which it has emanated will lead other associations to a due consideration of the subject.

The example of the Essex Society in publishing their transactions in permanent form has been much commended, and it has been followed, in many cases, with the most favorable results; and we trust that the plan now suggested by this society will meet with approval by other kindred associations, and that they will cheerfully respond to the proposal to exchange works, and thus aid each other in promoting the interest of each, and of the agricultural community generally. The success of Mr. Vattemare, to whom Mr. Proctor refers, and the happy results of his labors in promoting an exchange of books between different associations and different nations, are wonderful, and should encourage societies to carry on the same plan of reciprocity.

When a society has once formed a library, it will be constantly increasing, from donations of valuable works from generous individuals, who possess ample means, and will take pleasure in contributing to the encouragement of useful enterprises.

We find that files of agricultural journals are of great value for reference, and some of them increase in value as they increase in age.

We copy a few preliminary remarks from the president, and the official doings of the Essex Agricultural Society on this subject, and we commend them for consideration and action.

To the Editor of the New England Farmer.

SIR: At a late meeting of the trustees of the Essex Agricultural Society, a report on the formation of a library for the use of the society was approved, and ordered to be published in your paper. The purpose of this publication is, to bring the plan of operation to the notice of all those who may be engaged in similar enterprises, and to secure its adoption, so far as it may be found worthy.

The whole community are filled with astonishment at the success that has attended the labors of Mr. Vattemare, in collecting and exchanging books. Why cannot something of the same kind be done by agricultural societies? Pardon me in asking your attention to it, and soliciting from you a few words, editorial, in coöperation. The success that has attended the efforts of the New York State Society in the formation of a library, encourages the hope that farmers in Massachusetts may also succeed, if they will make a beginning. I think, sir, if you had access to a library containing all the agricultural journals that have been published, even in our own country, you would value the privilege most highly.

Very truly yours,

J. W. PROCTOR.

DANVERS, June 23, 1849.

REPORT OF THE TRUSTEES,

On the Formation of a Library for the Use of the Essex Agricultural Society.

At a meeting of the trustees of the Essex Agricultural Society, held on the 15th instant, the following report was submitted by a committee appointed, at a previous meeting, to consider the expediency of forming a library for the use of the society. The subject having been fully discussed by the trustees, and generally approved, the report was accepted, and ordered to be published in the New England Farmer. A copy of this paper will be sent by the secretary to gentlemen known to take a strong interest in the progress of this society, and in agricultural improvement, with the hope that the subject may so commend itself to their notice as to enlist their active coöperation in the enterprise, by the loan or gift to the society of agricultural books or pamphlets. Similar contributions are also respectfully solicited from all who are disposed to favor the object. These may be sent either to the secretary or to any member of the committee. The society is already in possession of some valuable works on agriculture; and all that is needed to lay the foundation of a library, to be free for the use of its members, is an addition to the number. The means will thus be furnished for the further diffusion of agricultural knowledge, and the consequent advancement of agricultural skill, among our farmers. And it is with the belief, that to improve the mind is one of the surest ways to improve the soil, this appeal is made by the trustees.

ALLEN W. DODGE,

Secretary Essex Ag. Soc.

HAMILTON, June 20, 1849.

REPORT OF THE COMMITTEE.

The committee, to whom was referred the subject of the formation of a library for the use of the society, are of the opinion that immediate measures should be taken to lay the foundation for such a library.

The reasons why this should be done, have been so fully stated by the secretary, in his Essay which has been published, (see Transactions for 1848, pp. 105 to 111,) that to dilate thereon would be superfluous. If they fail to convince, your committee feel that it will not be in their power to do so;—but being themselves convinced, they deem it to be their duty to urge upon the trustees the importance of the subject. They ask leave to present a few brief considerations, calculated to facilitate a favorable beginning.

For the present, the care of the library can best be left with the secretary. In each of the volumes should be placed a suitable label, descriptive of the ownership, and so firmly attached as to be incapable of severance. A suitable record should be made of all books received, especially of all books presented to the library, together with the names of the donors, and the circumstances under which the books were given. The publication annually of a list of such donations will answer the double purpose of informing the members of what books are on hand, and of encouraging them to add to the number. Gentlemen who have procured valuable books and become familiar with their contents, will take pleasure in granting a favor to others by placing the books in the society's library. There are many who would find a higher gratification in doing this, than they ever found in the perusal of the works. Let the former have an opportunity to gratify the ardent desires of the latter.

Let the secretary be instructed to open a correspondence with the secretaries of other societies, and publishers of works on agriculture, and forward to them copies of our own publications;—the consequence will be, that soon the society will be in pos-

session of complete sets of all the agricultural publications of the country. Already have the states of New York, Massachusetts, and Ohio, put forward their annual volumes of digested agricultural science — an example that will be likely to be followed in every state of the Union. Access to complete sets of such publications will be of inestimable value. Let an invitation be extended to all who rightly appreciate the object, to make such contributions as their convenience and ability will admit, and when the enterprise shall be properly started, there cannot be a doubt it will be liberally supported. At all events, it is an experiment worth trying, a failure in which can do no one any harm.

We would recommend the appointment of a committee on the library annually, whose duty it shall be to devise means for its increase; to make a selection of such books as it is expedient to purchase; and to make such regulations, from time to time, in relation to their use, as shall be deemed most expedient and proper.

Respectfully submitted,

JOHN W. PROCTOR,
DAVID CHOATE,
GARDNER B. PERRY, } *Com-
mittee.*

SALEM, June 15, 1849.

For the New England Farmer.

PEACH-TREES.

MR. EDITOR: I have frequently heard it asserted, by some of our most experienced cultivators of the peach, that the decay of this valuable tree is in a great measure owing to the practice of budding or grafting, as imperfect union takes place, a sickly growth is the consequence, and the diseased tree is then rendered more liable to external injuries and of the worm which complete its destruction.

So far as my limited knowledge extends, this is the case, in a great measure. In my peach orchard, which contains about one hundred trees, I have a few natural trees, most of which are equal to our best varieties; and this spring they are healthy, and are loaded with young fruit, while most of my budded trees were more or less injured by the severity of our past winter, and but few of them have much young fruit on them. Now, I think, if we would have healthy peach-trees, we must not do violence to nature. We must cultivate from the stone; and although we might find some bad and worthless fruit, we shall have much that is excellent, and obtain new varieties by planting the stones of those only which are very superior. I have obtained fine peaches the third year from planting the stone, without grafting or budding.

ROCKINGHAM.

EDITORIAL REMARKS. — Budding or grafting trees renders them less hardy, shorter-lived, and generally of a smaller size. Our long-lived and very large cherry-trees are, generally, mazarids, which is a common term for a natural cherry-tree. Budded peach-trees are more tender in fruit and buds than natural ones. One cause of the tenderness of budded peach-trees is the use of buds from a foreign country, or a warmer region in our own country.

If stones from excellent fruit are planted, they will generally yield good fruit; and if they are taken from good natural fruit, they will be still more sure to yield fine fruit. By proper attention in collecting stones from superior seedlings or natural trees, where they are not liable to mix in the blossom, and testing them, valuable fixed varieties may be obtained that

can be relied on to produce their like, as well as by budding and grafting.

We have six or eight kinds that yield nearly the same from seed, and they are equal to any budded varieties in quality. We have hundreds of some kinds growing in the nursery, that are perfectly uniform in wood, growth, leaf, glands, &c. They have all originated in the north, and show a hardiness beyond budded varieties which are from warmer climates. We have several others on experiment, and hope to obtain, in a short time, a complete assortment of seedlings extending through the season, and affording every desirable variety; so that we can dispense with budding altogether.

With proper attention to selecting natural peaches, and choosing a suitable location and soil, and pursuing a judicious mode of cultivation, the peach culture would be far more successful in New England. Many now cultivate without proper regard to these important considerations.

For the New England Farmer.

HAYING — HORSE-RAKES.

MR. EDITOR: I am of the opinion that many farmers allow their grass to become too ripe before it is cut. It is my impression that it is best to cut nearly all kinds of grass as soon as the largest bulk of it is in blossom, as in the formation and ripening of the seed, the stem must lose much of its nutritive matter, and will be less tender and palatable to animals. The largest amount of clover heads will usually be found in bloom when about one third of them are turned brown. Herdgrass may become quite ripe without losing its nourishing properties; but the stem grows dry and woody, and stock do not relish it as well as that which is earlier cut; and if it has grown rank, they will not eat it up very closely, unless they are kept rather short of feed. Red top may become equally as ripe as herdgrass, and still have its value less impaired. I believe many are led to suppose that late-cut hay contains more nutriment, for the reason that the stem, becoming hard and wiry, is rendered less palatable, and consequently our animals will not eat of it as freely. In my remarks upon the time of cutting grass, I would have reference to the kinds most common in this section.

In curing hay, I aim to preserve as much of the green color and natural juice as is practicable, and not have it mow-burn. To effect this, it should not be exposed to the dew or rain after it has begun to make, nor for a long time to the sun. As soon as the ground is dry between the swaths, they should be spread, and when the grass is thoroughly wilted, or about one third made, it should be placed in the cock, where it will generally very soon begin to sweat. It should be kept in this state from twelve to thirty-six hours, according to the character of the hay and weather. The cocks should then be well shook out, and in from two to four hours of favorable weather, with once turning, they will usually be sufficiently cured for the barn. I think this the best method for curing all kinds of hay, and particularly clover.

Hay cured in this manner is more tender, sweet, nutritious, and palatable; besides, we may save many leaves and heads that would be lost were it cured wholly by the sun and air. And another advantage is, that hay sweated in the cock is much less liable to heat in the mow. Any one may satisfy himself of this fact by observing how much less likely to

heat is hay that has stood and sweated upon the load. And another advantage of hay early cut and cured as above, is, that it is more healthy; keeping the stomach and bowels of our stock in good condition, without the necessity of feeding roots; and I believe in a better condition than would be possible to keep them on late-cut hay with the addition of roots. The practice of treading hay much in the mow, is a bad one, unless the want of room strongly demands it, as hay thus pressed down is far more liable to heat.

I can fully respond to your remark in the last number of the *New England Farmer* upon salting hay. Those who use salt to preserve hay, should use fine salt, as the hay may become of so high a temperature as to injure its quality before coarse salt would dissolve and allay the fermentation.

I think much the best way of preserving hay imperfectly cured, is, to mix with it old hay, straw, or corn fodder, in the proportion of from two to four hundred of one of these to a ton of new hay. I have frequently put up hay in quite a moist, green state, and by mixing in layers of old hay, have ever had it come out very bright, sweet, and heavy in the spring. I believe old hay summered over, and used for this purpose, will pay twenty-five per cent. Straw or corn fodder will answer equally well, but it gives the hay a slovenly appearance when feeding it out.

One word in relation to horse-rakes. I have used both the revolving and wire-tooth rake, and think that they make a great saving of time; yet there is one strong objection against the use of the latter, which is, that on ground that is top-dressed and newly seeded, or where there is fog or dead grass, it will scrape up and mix with the hay much dirt, old stubble, and fog, which is injurious to all animals that eat of the hay, and very much so to horses — often producing the heaves; and hay intended for horses should by all means be raked with the revolving or hand rake, unless the turf is very free from these injurious substances. I think more cases of the heaves are brought on by horses eating dirty, musty, and lifeless hay than by any other cause.

EBENEZER BRIDGE.

POMFRET, VT., June 26, 1849.

HONEY-DEW.

There have been a variety of opinions, and thousands of people are to this day ignorant in regard to what is the cause of honey-dew. For many years I was taught to believe that it fell from heaven, as did the manna on which the children of Israel subsisted during their journey in the wilderness. But upon a close search for more than four years, and a critical examination, I find this is not the case.

I reason as follows: If it falls from heaven, as other dew, why does it not fall upon all trees, leaves, and shrubs alike? which is not the case. It cannot be found upon buckeye, polk leaves, and many others. And another reason is the fact that there are often bushes whose leaves are covered with honey-dew, and this, too, while they stand directly under large, bushy trees, so that it would be impossible for honey-dew to fall on the smaller shrubs, which are so rich with it, directly under them.

I next conjectured that it might be owing to certain states of weather. But the same objections met this conjecture. Why is it not on all leaves that are subject to the same influence of weather? I come now to the point.

There is a certain insect that is formed and grows on the under side of the hickory leaf. When this insect comes to maturity, it is a small yellow gnat, with black wings. It can skip from one leaf to another, and it crawls over the leaf and throws out this

honey in specks and rows over the surface of the leaf; and as it crosses and recrosses its path, it drips this deposit in the same place till it forms a small drop. When the wind blows and shakes the leaf, the dew spreads itself in splotches on the leaf. I have seen this gnat throw out this honey. I have taken it before it could crawl, crushed it on the leaf, and found it rich with honey. I have tasted it, and found it sweet as honey.

These gnats do not like to stay on those leaves that do not hatch them. Therefore the most honey will be found on hickory leaves, as this leaf is a favorite of theirs. This accounts for the fact of some leaves having more honey-dew on them than others.

Yours, with great respect,

ABRAHAM MILICE.

— *Valley Farmer.*

POTATOES EXHAUST THE SOIL.

EDS. CULTIVATOR: I was taught, when a boy, that potatoes were not an exhausting crop, drawing but little strength from the ground. I have always taken this for granted, and I have made no experiment on the subject, more than to satisfy myself that they would not succeed well a second year on the same ground. If you should conclude that I have been indiscreet in taking any thing for granted, and passing on forty years without examination, I could not find much fault with your conclusion. But to the subject. In the summer of 1847, a neighboring farmer requested me to go into his lot and look at his clover. On reaching his lot, he showed me a field of clover, one part of which was of a vigorous growth, while the other part was small — not more than half, if more than a third, as large as the other, and the line distinctly marked through the lot. The clover was sown with oats the previous year. The year before that, my friend informed me, that the part of the field where the clover was best, was planted with corn; while the other part was devoted to potatoes. The whole, he said, was manured and cultivated just alike, and the clover was sown on all at the same time, and from the same parcel of seed. Here was a thing so different from all my former notions, that I began to think I had, all my life, been laboring under a mistake.

I had several times had corn on a part of the field, and potatoes on the other part; and had noticed that the subsequent grass crop was much the best where the corn had grown; but so deep was the impression that corn was a greater exhauster than potatoes, that I attributed the difference in the grass to other causes. At the time my attention was turned to my neighbor's clover, I had a piece of ground, which was seeded with grass, the previous summer with oats, after a crop of potatoes. The ground was well manured for the potatoes, and had previously borne large grass crops. I was much disappointed with the grass crop on this piece, and after mowing a very light crop two seasons, I last summer turned in the sward and sowed grass seed: whether this will improve the crop of grass remains to be seen. Will some of your correspondents, who have made observations, enlighten us on this subject? R. R. P.

MANCHESTER, CT., Feb. 15, 1849.

— *Albany Cultivator.*

REMARKS BY EDITOR N. E. FARMER. — It is well known that potatoes do not bear a succession of crops without very high manuring. They are very exhausting as it relates to their own crop to follow; they are also very exhausting in regard to clover as a succeeding crop, and it may be the same with some other crops. But because it will not bear a succession of crops, and is exhausting for clover, it should

not be taken for granted that it is exhausting generally, for some crops flourish well after potatoes.

Some years since, a correspondent communicated the result of an experiment, and asked for an explanation of one so strange. He planted a piece of land partly to corn and partly to potatoes, and then sowed to grass. On the corn land, the herdsgrass succeeded well, and the clover failed; on the potato land, the reverse appeared.

We accounted for the difference in this way: In the potato, particularly in the top, is much lime; and this substance was exhausted by the potato crop, and this element being deficient, the clover failed, as lime is one of the principal constituents of clover.

Corn contains a large quantity of silex or sand, which is dissolved by potash, and taken up into the plant, forming the outside of the stalk, and giving it stiffness and firmness. This is the same material as glass, and some persons in working among corn-stalks have cut their fingers with this substance. Herdsgrass also contains a large quantity of silex, and it has a stiff stalk. On lands composed mostly of mud, there is a deficiency of sand, and herdsgrass lacks firmness and falls to the ground when only partially grown. As corn and herdsgrass require a large portion of sand and potash, it may account for the failure of one after the other, where there is not a good supply of these ingredients in the soil.

Further experiments and nice observations are necessary to show that potatoes are generally very exhausting.

THE GREYLOCK POTATO.

We are indebted to Hon. A. Foote, of Williamstown, Mass., for a barrel of his new variety of potato, called the *Greylock*. They are well shaped and of good size. We have tried some for the table, and though they were evidently injured by exposure to the air, they were nearly equal to any other with which we are acquainted. We shall have them planted in such a way as to give them a fair trial. Mr. F. gives us the following account of their origin and habit of growth: "It is an accidental cross between the Carter and Mercer, — taking the complexion of its skin from the dark color of the Mercer, and that of its flesh from the whiteness of the Carter. It is a vigorous grower, produces as well as the Peach Blow, [Western Red,] and in texture and flavor is not excelled, in my opinion, by any known variety. Side by side, the last season, the tops of my Peach Blows were badly blighted, while those of my Greylocks remained in all their freshness. Time of ripening somewhat early, but not so early as that of the Mercer. Like all the finer varieties, it is subject (here) to the 'potato disease,' but in a less degree than either of its parent varieties. Its origin is dated back four years." — *Albany Cultivator*.

THE INFLUENCE OF AGRICULTURE.

We have occasionally given valuable extracts from the address of General Josiah Newhall, before the Essex Agricultural Society, last fall. Here follows another, showing the very salutary moral influence which agriculture has on the nature of man: —

The pursuit of agriculture is not only favorable to man's physical well-being, but is eminently conducive to the improvement of his moral nature. The

farmer is that favored being who is permitted, as it were, to stand in the laboratory of the Infinite One. While many of those engaged in other useful and important occupations are necessarily confined within the narrow limits of their study or workshop, his office or place of business is the vast temple of nature. He seems, more than others, by his daily occupation, to be admitted to nearer approaches to Him, whose humble coöperator he is, in producing the means of sustaining life. While the artist and mechanic, by their skill and ingenuity, as they operate upon dead matter, can produce results in accordance with their wishes, he feels that, in dealing with the vital principle, without the direct smiles of Heaven upon his labors, he can produce nothing. When the rain is withheld, and the "heavens become as brass, and the earth as iron," and vegetation seems to be perishing, how often is his eye directed to the horizon, that perchance he may see, as did the servant of the prophet, a cloud rising, though not larger than a man's hand, and giving promise of the needful blessing! He beholds, therefore, with the deepest interest, the progress of vegetation from the opening of the vernal season to the closing autumn. When the mighty forces of nature are quiescent, he sees their silent energy in the beaming sun and the gentle zephyr. And in their awful manifestations, he recognizes in the lightning's gleam the glance of that eye whose all-pervading sight reads the unspoken language of the heart! And in the bursting thunder, and the fearful earthquake, he hears, with awe, the accents of "the voice that shakes all nature's frame."

The volume of nature is wide spread before him; and whatever may be the dogmas which men may have derived from other sources respecting the character of the Creator, he here reads in this "elder scripture" the impressive and all-subduing lesson that God is good; that his paternal care is extended to every creature; and that all, from man to the humblest insect, are the monuments of his exhaustless love.

With such exhibitions daily before him, and with a knowledge of the divine economy in the natural system, where every thing changes, but nothing is lost, — where from apparent annual death arise new forms of beauty and loveliness, — the farmer, after a life well spent in the pursuit originally assigned him, bows to the law of his being, wraps his mantle about him, and lies down in the sleep of death, with the most unshaken faith in the accordant lessons of nature, and of revealed religion, that he shall awake in those celestial scenes, the glories of which "eye hath not seen nor ear heard."

THE APPLICATION OF LIME.

The use of lime as a remedy for mildew among cucumbers, and the disease of the potato, is highly recommended by English writers, and no doubt, judiciously applied, will prove of much value in this department of horticulture. Water in which lime has been slacked or soaked is efficacious in all possible ways for the destruction of insect life. The syringe, applied with it to trees infested with caterpillars, soon clears it altogether. Sprinkled on grass lawns, which it whitens till the rain washes it off, it drives the worms down, or brings them to the surface very quickly. Syringing plants, says the Horticultural Magazine, which have the bug, or wall fruit trees, (they are sometimes covered with ants, earwigs, small caterpillars,) and afterwards with clean water, is of great service, and lime dusted, or lime-water sprinkled, on gooseberry and currant-trees, cleans them as completely as if they had never been attacked. Laid round a bed liable to the attacks of wandering snails and slugs, it prevents

them from crossing the boundary; but it requires renewal, because its caustic qualities are lost in time. Ploughed into land, or forked into beds infested with grubs, it has the best possible effect; and where the garden is bounded by a hedge, which is the most harboring of all receptacles for vermin, there is no better means of destroying the greater part of them than sousing it well with lime-water, by means of a garden engine. There can be no mistake in lime-water for this purpose; because you may let the water take up as much lime as it can, only it must be used clear. Lime is one of the best substances to mix with manures of all sorts: it absorbs that which would be wasted; it disinfects the mass; it makes the most offensive matter inoffensive. A layer of night soil and a layer of lime would be as harmless as so much common earth. It is impossible, therefore, to overrate the usefulness of this substance in the garden or in the farm; and the more the public begin to understand the value of the sewerage of the metropolis, the contents of cesspools and drains, the more will they also recognize the value of that substance which will render the most nauseous of all waste harmless, and prepare it for the earth which requires it. Lime is of such efficacy in the way of disinfecting any disagreeable production, and counteracting infection in every shape, that one of the most early precautions against the approach of contagious disease, is to lime-wash the brick walls of all workhouses and public buildings where the lower orders congregate. It is even said that the brick walls of the chief apartments in union houses, are not covered with plaster, or other matter, because they should take the lime-water readily; and this hint may not be lost on those who house and provide for many working people during the summer season. Lime-wash the walls, and use lime to disinfect anything that might become a nuisance. — *Farmer and Mechanic.*

EXTENSIVE FLOUR BARREL MANUFACTORY.

We learn from the Oswego Com. Times, that Messrs. Humphrey and Dodge, having secured the right for the state of New York to use improved patent machinery for the construction of barrels, have established an extensive manufactory at Kasoag, in this county, on the head waters of Fish Creek, in the town of Williamstown. It employs from fifty to seventy-five men, and turns out easily four hundred flour barrels in a day. They are manufactured entirely by machinery, each stave taking, in the process of manufacturing, the same position it occupies in the barrel when set up; consequently all the barrels must be precisely alike. All the staves are of the same width, and after they have been seasoned, are passed through the finishing machine, where they are planed, joined, crozed and champered. The planing gives the barrel a beautiful appearance; the croze is similar to the croze for tight work, and the chime is left thick and strong. The barrel varies in shape from the article now in use, and is supposed to have many advantages on that account. It is about one and a half inches shorter, and has an eighteen inch head, with the same sized bilge as other barrels. On account of their form, one fifteenth is gained in storage, and at the same time, the barrel being fuller in the quarter, will allow one hundred and ninety-six pounds of flour to be packed looser than in the present shape. The heading is also passed through machinery, which gives it the same accuracy as the staves. Oswego affords the largest market for flour barrels in the world, requiring for its own use at least a million of barrels per annum, besides the ordinary Canadian demand, and the demand for other lake ports on the American side. The establishment of Messrs. Humphrey and

Dodge is situated eligibly for water power and cheap and abundant material, about thirty miles from Oswego, on the line of the Rome Plank Road to that city. — *Farmer and Mechanic.*

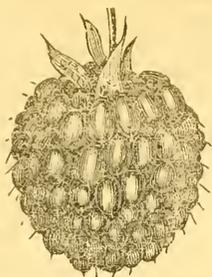
WATER FOR BEES.

Bees make a free use of water, and they usually have a watering-place, where all the bees of the apiary resort. We have seen fifty at the watering-place at one time. According to our observations, they do not go to the water, as it is in a body, but they go within a foot or a few inches of it and then suck the moisture from the mud, or little bank that rises from the water. Mr. Miner, in his most excellent work on bees, which we would earnestly recommend to every bee-keeper, makes the following remarks on water and its uses, with directions for forming artificial watering-places. We advise placing a little bank of mud on one side of the water, rising six or eight inches above it, into which the water will rise by capillary attraction, and let the bees take their choice and alight upon the mud or stones.

Writers on the management of bees have hitherto given no elucidation of the necessity of bees having water within their convenient reach, beyond the simple assertion, that they either should have water placed daily in pans near the apiary, or that they should be situated near to some stream, lake, or river of fresh water. What the effect would be to have no water within the ordinary range of their flight, has never been shown; perhaps for the reason, that an apiary cannot be placed where the bees cannot find fresh water in some place, within the range of their flight, unless it be in a desert. Even the wells of the neighborhood frequently afford all the water that is required, from the drippings of the bucket, or from the troughs that often stand beside them.

I have often seen bees around my own well, in great numbers, extracting the moisture from the outside of the bucket, or arranged along the gently-sloping sides of a trough, that I had placed there expressly for them. Bees do not like to descend the vertical sides of a bucket, or of any other vessel, to obtain water; because there is danger of falling in; but a sloping, shallow trough, the sides of which form an angle of from thirty to forty-five degrees with the horizon, suits them much better.

Every bee-keeper should either afford his bees a supply of water at his pump, or well, or place a shallow vessel near the apiary, filled with small stones, about the size of a pigeon's egg, in order to give a resting place for the bees; and the vessel then to be filled with fresh water every morning, unless there be a stream of fresh water near, in which case, both modes might be dispensed with. A tin baking pan, about an inch or more deep, is very suitable. Should no stones be put into the pan, many bees would be drowned. I have even known many to be drowned, in cool spring weather, when the stones in the pan were so large, as to admit of spaces or surfaces of water only two inches across! One would suppose that so small a space as this would be overcome by the bees at once; and when losing a foothold, and falling into the water, they would cross to the stones, and soon be on the wing again; but such is not the case in cool weather, such as we generally have from March to June. In very warm weather, fewer bees, under the same circumstances, would perish; yet water is so benumbing to them, at almost any season, that when once immersed, they seldom recover, unless assisted by man in placing them in some warm, sunny place to dry.

*Fastloff.**Franconia.*

THE RASPBERRY.

The cultivation of the raspberry, in this country, is comparatively a new thing, and the subject receives but little attention; yet it is well worthy the regard of all who raise their own fruit, or raise for the market, in the vicinity of cities and towns. The raspberry will flourish on any good tillage in good condition for common farm crops. But the best soil is a deep sandy or gravelly loam, tolerably moist.

The stools or hills may be set about four feet apart each way; or, for convenience in culture, make the rows five feet apart, and the hills three feet in the rows. When the crop is off, the old canes or stalks should be cut away, and the new ones trained up to take their place. Then apply manure, and stir the soil thoroughly. This is a better preparation for a crop next year, than to let the old canes stand, and defer manuring till the next spring, as the new canes, on which will be the next crop, will be feeble for want of room and culture. It is a great mistake to defer manuring plants until it is almost time to look for the fruit. The manure should be applied in season to give a stout growth, preparatory to a large crop. The farmer would fail of a crop of corn, should he neglect to manure till the stalks are nearly grown, and then look for large ears on small plants.

Among the most valuable kinds of raspberries are the Franconia and Fastloff, represented above. They are both large and of excellent quality. The fruit of the Franconia is the firmer, and bears transportation well; therefore it is preferable for the market. Fastloff is very tender, and some prefer the fruit on this account. As they ripen at different periods, — Fastloff, July 15 to 30; Franconia, July 25 to August 10, — they are, in this respect, well adapted for culture on the same lot, forming a succession.

These and other similar kinds, such as the Red and White Antwerp, &c., need to have the canes bent down, and covered a few inches in earth, in fall, to save them from our severe winters. They are foreign varieties, and rather tender.

The American Black, or Black Thimbleberry, grows spontaneously in most parts of New England. It is vigorous, productive, and so hardy that it needs no protection; and it is easily cultivated by keeping the soil rich and loose, and cutting out the old canes, after the crop is off. It will flourish on any

soil. As it is hardy, it may be cultivated with much less attention than the other kinds. The fruit is very good, but not equal to the red varieties, and, of course, it does not sell so well in the market.

The American White is like the Black in its habits. The fruit is not of so high a flavor, but it is sweet; and many children, and others who like sweet, luscious fruit, would prefer it. In its growth, it is more luxuriant than the Black.

Raspberries are excellent and wholesome fruit, coming in during the heat of summer, soon after the strawberry, when such light, cool, refreshing fruits are highly acceptable. They are usually very salable, and with good luck, — which is often synonymous with good management, — they are very profitable. We have seen an acre, with the stools four feet apart each way, that produced over a quart to the hill, which is more than half a bushel to the rod, or eighty bushels to the acre. But this is a great crop. The usual price of raspberries in the Boston market is from twenty to thirty-seven and a half cents per quart, at retail.

AGRICULTURE.

Agriculture has been aptly styled the master sinew of every great state — the perennial fountain of wealth. Rural labors are equally conducive to health of body and mind. The mechanic operations hold only a secondary rank; the culture of the fields constitute the most natural and innocent employment of man. Agriculture clothes our land with grass for cattle and with the herb for man. She fills our houses with plenty, our hearts with gladness, and puts into our hands the staff of life. The ancient republics afford us several instances of generals and statesmen having exchanged their boisterous employments in war and politics for the more peaceful arts of the field and the cultivation of the ground; thus adding to the culture of philosophy that of rural economy, and rendering themselves doubly serviceable to their country.

PRESERVATION OF LAMBS FROM VERMIN. — An ointment made of gunpowder, brimstone, and common grease, applied behind the necks of the lambs, will infallibly preserve them from all kinds of vermin. The quantity requisite is so small, that a sixpenny worth is sufficient to dress two hundred lambs. — *French Paper.*

PRACTICAL EDUCATION.

Much has been said, and more, perhaps, written, of late, upon the subject of an agricultural school. But, as yet, we have seen no plan proposed, which, to our mind, meets the wants of the public.

An agricultural school does not convey an idea of what we want; nor does an agricultural college convey any more definitely the true object to be gained.

It is conceded that our colleges and universities, so far as being of any practical use to the farmer or the mechanic, in the education of his son, are a total failure. The whole system is the relic of that age when education was only for the rich and noble of an older country. Men, in those days, were educated to be gentlemen; manual labor was a mark of servitude, and, as such, held to be without the pale of gentility. Those who followed it would not be tolerated among those higher and refined classes. The collegian rarely went from the plough or workshop, and more rarely went back to them. Colleges have been, and are now, the seminaries for educating men for professions; and as such they are probably well fitted to do their duty. In this state, they have been largely, in some instances prodigally, endowed.

It is, however, a lamentable fact, that there is not an institution in the Union, where a student can receive a thoroughly practical education—one that will prepare him for filling the duties of an American citizen, if taken from the farm or the workshop. The Military Academy at West Point is eminently practical, but it is only intended to teach the science of war, with all its kindred branches. It will make good soldiers or engineers; but it will not make good farmers or mechanics, though it is certain that a graduate there would be far better prepared for either than a graduate from any college in the Union.

We want, then, an institution that will be to the farmer and mechanic what West Point is to the soldier. While it fits him for the proper and understanding discharge of his duties as a citizen, it should also prepare him for the particular branch of business he is to follow through life. We would not educate him as farmer or mechanic, but we would so educate him that he could be either, and he could be so too understandingly.

We are glad to see among the commission who have this subject in charge, some of enlarged views and practical knowledge, and have hopes they will be able to report a system perfect in its detail. But still we much doubt whether the public is fully prepared to go into the subject with that liberality which will insure it complete success. To carry out any plan that would at all be worthy of the cause, would require a permanent investment of at least a half a million of dollars—an inconsiderable sum, when compared with the millions which have been sunk and lost by improvident legislation; but still we fear that there may be men found who would not be willing to go into this most important movement with becoming spirit. We shall hope for the best, and again recur to the subject. — *Wool-Grower.*

REMARKS BY EDITOR N. E. FARMER. — We are pleased with the independent tone and good sense which Mr. Peters has exhibited in the preceding article. While the subject of agricultural schools is under consideration by the legislatures of different states, we hope that practical men will speak out their sentiments, that when schools are established they may be placed under the management of men who are distinguished for their general intelligence, economy, and practical knowledge.

If agricultural schools are to be managed by men who spend money in farming, then the student will learn to regard taste and fancy, and get into habits of extravagance, so that he will need a competency to enable him to farm, and that he would soon spend, instead of accumulating property and gaining a competency. Industry and strict economy are necessary to success in farming, and these habits must be acquired by experience.

POWER OF INSECTS.

We find in Chambers's Journal an article on the "Importance of the Significant," which treats, among other things, of the destructive power of insects. The writer says —

When countries have been shaved of their increase, whole kings and councils have been perplexed, and whole nations have trembled at the sound of an insect's wing, we are justified in giving their deeds a record in this place, and on this occasion. Let him who can count the leaves of the thickest forest, despise, if he can, the powers of that legion of caterpillars of which Reaumur speaks as having brought a premature winter upon a dense wood in France which he visited. Every tree was overrun with them; and in a brief time, from the refreshing green of spring, the whole scene assumed the parched, brown aspect of autumn. Such was the alarm excited, that an act of government was called forth, decreeing that every body should assist in the extermination of the insects. But they were not to be annihilated by "acts of parliament;" cold and rain killed them. The Hessian fly, supposed to be carried by the far less formidable Hessian troops from Germany, committed, for a length of time, the most awful ravages in North America. At one period it was thought they would annihilate the culture of wheat altogether. They came in enormous numbers, thickening the very air, crossing lakes and rivers like a cloud. In a tumbler of beer, five hundred met with death by drowning! The privy council, we are told, met day by day to consult what measures could be adopted to destroy these ravagers. Expresses were despatched to France, Austria, Prussia, and America for full information; and the minutes of the council and the necessary documents fill upwards of two hundred pages. All this is about an insignificant fly!

The weevils, likewise, have an evil name for their destroying powers. Every voyager knows them, and has watched their manœuvres in his biscuits, or has been on the point of swallowing them in his soup. A great brewer used to say that he collected them out of his granaries by bushels; which cannot be wondered at, when we remember that a single pair will, in the course of a year, become surrounded with a family of six thousand. Our grapes are often cut down for us, and withered before their time, by the larvæ of other insects. In the course of the last century, they multiplied so excessively in Sweden, that numbers of the meadows became white and dry, as if scorched. The larvæ of our childhood's friend, "Daddy-long-legs," some years ago, entirely destroyed hundreds of acres of the richest pasture-land, all becoming dry and dead. A piece of turf, a square foot in size, when examined, contained the enormous number of two hundred and ten grubs.

After all, what are these to locusts, that oppressive scourge with which Providence occasionally visits nations? To quote a single instance: In Russia, in 1650, they came at three points in vast multitudes; they darkened the very air, covered the earth, and in some places their dead bodies formed a stratum four inches deep; the trees literally bent under them, and

were of course stripped clean in very little time. On one occasion, they were said to be the indirect cause of the death of about a million of men and animals. Surely, here is a display of power which redeems insects from the stigma of insignificance. — *Selected.*

BLIND DITCHES.

As agriculture, and every thing else connected with the tillage of the soil, is every day becoming more and more an object of solicitude amongst the farming community, it is gratifying to see a portion of your excellent paper devoted to that important subject. The extended circulation of the Dollar Newspaper makes it a medium through which the different sections of our country may be mutually benefited, by the scientific knowledge and practical experience of each other. The productions of the soil being the source from which the human family is fed and clothed, and from which the elegancies as well as the luxuries of life are derived, it is important that the best methods of preparing and cultivating the soil, should be well understood by every farmer. It is a subject of regret that farmers in general are not better educated, "in order," as a certain writer expresses it, "to make the profession more respectable." But we must take things as they are, and not as we would wish. We will leave to the chemist to analyze the various kinds of soils, and tell their different qualities, while we practical farmers give our experience in our own way, no matter how much it smells of the soil. But to the subject.

A large portion of the land in Indiana, as well as some other of the Western States, is technically called "flat woods," "wet land," "black slashes," &c. This land, particularly the black slashes, is the most valuable land in the country. First, it is the best timbered. Second, it requires less labor to enrich it, as it retains whatever substance is put on it better than the dry land; for this reason, there is less gravel and sand in it. I think there is no observing or thinking farmer in Indiana but will admit the truth of this; hence the advantage of draining it is apparent to all. The best mode of draining this land is beginning to exercise the minds and bodies of the farmers in this section. So far as has come under my observation, trenches are dug eighteen inches wide, and to average the same in depth, then covered first with boards, and then with earth, so that they can be ploughed over. This is what is called blind ditching, and it has been found to dry the land sufficiently for the raising of any kind of grain. But how long will the wood work in the ditch last? is a question not yet solved by experience in this vicinity. The oldest ditch I know of was made ten years ago. Some think the timber will soon rot; others think it will last a long time. Will some of the farmers of older states give us their experience in the matter, tell us how long oak timber will last under ground, that kind of timber being more plenty on our wet land than any other; and I think the subject one of great importance to the west — vastly more important than the discovery of a gold mine would be.

HARTSVILLE, INDIANA, 1849.

— *Philadelphia Dollar Newspaper.*

C. S.

ACORNS.

The fruit of the red, white, and yellow oak constitutes an excellent and palatable food for swine, and in seasons when it is abundant, may be gathered in almost any quantity and at small expense. Where there are extensive forests of these valuable trees, it is common for farmers in the vicinity to turn their swine into them as soon as the acorns begin to fall,

and allow them a free range till late in the fall. In this way, a very considerable saving is effected, as the animals not only "get their own living," to adopt a rustic phrase, but frequently return to the pen in much better condition than when they went out. Some farmers gather acorns as a winter feed for their swine, and regard them as about equal to corn, bushel for bushel. In plentiful seasons, an industrious man will gather two or three bushels, often more, of red oak in a day, and from one to two of the other kinds. One thing is certain: whatever may be the specific or relative value of acorns, swine will winter well on them without the assistance of other food; and in several instances pork of a very fine quality has been made on uncooked acorns, and in as short a period as is generally consumed in fattening on corn or meal.

Reckoning acorns at the common price of corn, and supposing one hand to gather, on an average, two bushels per day, the business will be seen at once to be profitable, and especially so in seasons when the corn crop is short, and its place is to be supplied by other food. That the acorn constitutes a large proportion of nutritive matter, is a position that has already been abundantly proved. According to a recent analysis, it contains of soluble nutritive matter, sixty parts; of starch, forty do.; of vegetable fibrin or albumen, twenty-seven do.; of saccharine matter, two do. The analysis was made by a distinguished chemist, and is no doubt substantially correct. The acorns submitted to his examination were not green, but had been two months dried in a free atmosphere, without the aid of artificial heat, or exposure to the calorific rays. By grinding and cooking, the nutritive power of the acorn, like that of all vegetable matter, would no doubt be greatly improved. AGRICOLA.

LOWER DUBLIN, June 13, 1849.

— *Germantown Telegraph.*

SORE SHOULDERS, ETC.

Farm horses are liable to be injured on the shoulder or back with a collar or cart saddle. In these cases, styptics are commonly used to dry up the wound, which is quite contrary to the nature of this kind of sores. Lime-water and linseed-oil are what I have found most beneficial in these cases. It may be prepared in the following way: Put two quarts of water upon two quarts of unslaked lime; let it stand till the ebullition is over; then pour off the liquor for use, and add five gills of linseed-oil, and two ounces of sugar of lead. Mix them well together, and keep the solution in a bottle for use. When the animal comes in from work at night, the sores should be washed with soap and water, dried with a soft towel, and dressed with a feather dipped in the mixture. This process should be repeated every night till the sores are healed, observing to shake the mixture well every time it is used.

When a horse is injured by the harness, it is necessary to examine what part of it caused the injury, and get it removed by altering the stuffing of the collar or saddle, that it do not press on the sore; for if a wound be constantly irritated, it is hardly possible to heal it. Too few that have the charge of horses consider properly how little is the cause that irritates and injures them, and makes them either dull and spiritless or refractory and spiteful; and I would therefore enforce on those who work them the incumbent duty that devolves on them to adjust the harness for the care or comfort of the animal as much as possible. — *Selected.*

"Love labor," cried a philosopher; "if you do not want it for food, you may for physic."

Domestic Department.

REWARD OF INDUSTRY. — Every parent, and every individual who has the care of children, should be particular to teach them the habits of industry and economy, and the principles and importance of these cardinal virtues. This duty falls to the lot of the mother more especially.

In requiring children to work a part of the time, two important objects are to be accomplished — to accustom children to habits of industry, that they may practise in that line with pleasure, or from custom: and learn how work should be done, or the philosophy of labor; for children are great reasoners, or philosophers, and they should be encouraged to study cause and effect, the principles of action and the result; and they will ask thousands of questions to gain information, and the parent often finds it difficult to answer all the questions of the little inquirer.

In requiring children to work a part of the time, it should not be urged solely as a matter of duty, to aid the parent, to whom they are under great obligation, though this is a consideration of some importance; and the effect on their future welfare is also important, and should be kept in view; but the child should receive that encouragement which puts the whole world in motion — man, beast, bird, fish, insect — a reward for industry. In every region, and in every gradation in the animal kingdom, there is labor, and the motive is the compensation which labor brings.

The farmer tills the soil, the mechanic plies his tools, the sailor tugs at the oar and encounters the dread storms and countless dangers of the deep, the student labors at his books, the philosopher is engrossed in his investigations, and men of every profession ply themselves to labor in their art, trade, or science, and all for compensation; and the whole animal creation are acting on the same principle; and shall we ask the child to work for nothing, or only that which he already has, and which he knows that he has had from his birth up, by the affection and indulgence of fond parents.

Give children some reward for their labor. Let them have a compensation that they may plainly see that something is accumulating from their industry that they can call their own. This will cheer them on their way, and make their labor light and pleasant.

CURRANTS AND THEIR PRODUCTS. — No small fruit is more sure of a market than currants, as the manufacturers of currant jelly, in the large cities, are always ready purchasers, while the increased consumption of currant jelly will insure a continuance of demand. Currant jelly, well made, will always find a ready market in New York, and the other large cities, at from fifty cents to one dollar per quart, while currant wine, of good quality, sells readily at one dollar per gallon.

Currant Jelly. — Place the currants in a stone or glass jar, and suspend this jar in a vessel of boiling water until the currants are in a condition to yield

their juice readily; then place them, while hot, in a bag, and press out the juice; add pure, double-refined loaf sugar, and then boil until it jellies: this point is ascertained by dropping a portion on a cold plate, and if it will hold fast with the plate upside down, it is done, and should be removed from the fire. Should any scum arise, it may be skimmed off. Put the jelly, while hot, into jars, and cover tightly. Our experiment last year resulted thus: Twenty-seven quarts of currants gave twenty-nine pints of juice, and with twenty-nine pounds of double-refined sugar, gave eighteen and a half quarts of very superior currant jelly. Those who suppose that currant jelly can be made with common brown sugar, or even with inferior loaf sugar, will find themselves without a market, as an inferior article cannot be sold.

Currant Wine. — To each quart of the juice of currants, expressed cold, add three pounds of fine loaf sugar, and as much water as will make one gallon; fill the cask with this mixture, and permit it to work; rack it, &c., in the same manner as cider; the addition of brandy or extra alcohol, in any form, alters and injures the flavor; and if the sugar used be thoroughly refined, the natural alcohol formed during its fermentation, will be found to be fully sufficient for its preservation.

The white Dutch currant makes of course a paler wine than the red, and of very superior flavor. The black currant requires one third less water, and produces a wine slightly resembling port. It also makes a syrup excellent for sore throat.

Boys' Department.

Books. — Books may be likened to a vast reservoir, and the reading of them to a conduit, which leads out a stream of knowledge to refresh and invigorate the mind. Reading, to him who is in search of knowledge, is a cloud by day and a pillar of fire by night, to guide him along an uncertain, dark, and rugged way. It gives a constant and vigorous impulse to the mind, and is as necessary to its healthful action as food is to the body. By means of reading, the treasures of history, the wonders of astronomy and chemistry, the beauties of poetry and eloquence, are opened to our view, to enrich our minds, to exalt and purify our hearts. The experience of ages is placed within our reach, and we have only to cultivate our memories to retain its treasures. It is true, much of this advantage and improvement is predicated on the judicious selection of books. If this be neglected, they may be the instruments to minister to a diseased imagination and a depraved taste, and afford as little benefit to the reader as deadly poison would to him who used it instead of healthful aliment. — *Common School Advocate.*

LITTLE KINDNESSES. — Small acts of kindness, — how pleasant and desirable do they make life! Every dark object is made light by them, and every tear of sorrow is brushed away. When the heart is sad, and despondency sits at the entrance of the soul, a little kindness drives despair away, and makes the path cheerful and pleasant. Who will refuse a kind act? It costs the giver nothing, but it is invaluable to the sad and sorrowing. It raises from misery and degradation, and throws around the soul those hallowed joys that were lost in Paradise. — *Selected.*

Health.

CLEANLINESS PREVENTIVE OF CHOLERA.—Personal cleanliness is a great preventive of disease generally; but in the cholera pestilence, it is even more essential than local cleanliness, if we would escape the scourge. It is not our intention to intimate that personal cleanliness is a general vice, in this or any other community of our country; but we believe it is not denied that the Americans, as a people, are subject to hydrophobia in an eminent degree—have a great horror of water, in its external application to the body. The rich and well-to-do in the world do not even indulge in the bath as freely as the same classes in other countries; and the experience of foreign-born physicians amongst us will bear testimony to the fact, that they find diseases prevalent among the wealthy which arise wholly from habits engendered by the neglect of bodily ablutions. If such be the result among those who have the means to prevent it, it is not to be presumed that any better state of things in this respect exists among the toiling thousands, intent alone upon procuring the subsistence of life. Every person should, at least once a day, wash the entire body. The practice will make manifest an improvement in the general health, both bodily and mentally. Braced muscles, invigorated nerves, a quieted brain, and a cheerful temper, invariably follow bathing once in twenty-four hours. A body and mind so prepared could encounter the cholera pestilence without fear of danger. Clean clothing is a certain sequence of daily bathing. No man, woman, or child, who is in the habit of daily ablutions, can tolerate for a moment any other but clean wearing apparel. The habit of bathing begets a feeling of hostility to uncleanness in every form. The great obstacle to daily bathing, in the minds of most people, is the trouble of it; but we would remind the reader, that nothing, which is worthy of having, can be had without trouble. A half hour spent once a day in washing the body, would save many daily hours of prostration on a sick bed; besides, the indulgence in the practice will soon beget a love of it, and where men come to love to do a thing, it is always very easy, and is almost sure to be done. The argument in favor of personal cleanliness is unanswerable at all times, but more especially at the present time, because it is a powerful means of disarming the dreaded cholera of one half its influence and effects. It is never too late to begin a good work, especially when the enemy is at the door. — *Wash. Nat. Whig.*

in which he says: "Nothing more is necessary, than to strip the tree entirely of its bark during the season of the flow of the sap, and leave it to dry before it is cut down." I do not suppose there is any advantage to be derived from the tree remaining standing; in fact, my own observation is in favor of cutting them down at once, so as to prevent their receiving moisture through the live roots. We all know how tough the twigs and shoots of the willow (*salix viminalis*) are when woven into baskets, as well as how extremely brittle when they have lain a few months, after being cut, with the bark on. There is an equal difference with the alder, white birch, poplar, as well as others.

If any man doubts, in regard to the proper time for felling timber, to render it most durable, let him try an experiment for himself in this way. Let him, the present season, cut a tree of the several kinds he is accustomed to use, at such times as the bark can be removed, and from a part let the bark be taken, on another part let the bark remain. In the autumn, and in the winter, let him cut still others, and let them be alike exposed, and a very few trials will enable him fully to determine the matter, and the information thus acquired will amply repay him for the trouble; or, if he wishes to determine more quickly, let him choose a small branch of each kind of tree, and use them for the experiment, bearing in mind that a branch too small may become dried in spite of its covering of bark. C.

WATERBURY, VT., 1849.

— *Philadelphia Dollar Newspaper.*

By means of a chemical discovery recently made, it is said that oil of turpentine can be freed from its peculiar smell so completely that not only is it rendered inodorous, but it can be impregnated with any desired perfume, without deteriorating its useful properties.

PERMANENT IMPROVEMENT OF CLAY SOILS.

Clay soils are distinguished by their adhesiveness. They stick to the feet when damp, they imbibe moisture slowly, but do not transmit it freely for the use of plants; and when strong clay soils are brought quickly from a wet to a dry state, they approach to the state of bricks previous to their being burned. Clay soils are tilled with difficulty when too dry, and when too wet, this operation has the same effect as the tempering of clay has in the art of brick-making.

The tillage of such land in a proper state is therefore of the greatest importance, and this is best performed when it is neither too wet nor too dry.

Poor, thin clays, upon a retentive subsoil, are the most unprofitable; the expense of their cultivation, under the present system, is great, being frequently equal to the value of the produce, and sometimes far above it. Their natural produce is coarse grass of very little value, fit only for young beasts.

Clay soils are best calculated for the production of plants that have fibrous roots, particularly wheat, beans, oats, vetches, clover, cabbage, grass, &c.

While the light, sandy soils have been greatly improved by the adoption of a new system of culture, the poor clays remain in the same state they were in a century ago, without any increase to their productiveness; indeed, they are rather in a worse state than formerly. It is therefore supposed by some agriculturists, that, as there have been no improvements in the clay soils, while there has been so great an increase in the productiveness of sandy soils, that the

Mechanics' Department, Arts, &c.

THE TIME TO CUT TIMBER.—It has been the custom, in Vermont, for those who own timber to cut it in winter, without regard to the use to which it is to be put; but having so often seen posts, and rails of fences, as well as the timber in carriages, rendered utterly worthless by being worm-eaten, I have been led to inquire if the season at which it was felled, produced any effect.

It is well known that the bark cannot be stripped off, only at the time that the leaves are growing, and I think observation has universally established the fact, that timber stripped of its bark, and seasoned quickly, so as to prevent fermentation, is much more durable, strong, and less liable to become worm-eaten, than that from which the bark has not been removed. M. Buffon, the naturalist, presented a memorial to the Royal Academy of Sciences, at Paris, in 1738, entitled "An easy method of increasing the strength, solidity, and durability of timber,"

clays are not susceptible of improvement with the least chance of a proper return.

There is no doubt but a better system could be adopted for the cultivation of such strong clay soils than that which is pursued in the common fields, and on the clays of Bedford, Huntington, Cambridge, and other counties, on the malm, gault, oak-tree, clunch, Oxford and blue lias clays.

The course of cropping adopted in the common fields, and on thin clay, is summer fallow, if dunged, wheat, and then beans; or without dung, barley, then oats, then fallow again; and this is the same as it was one hundred years ago.

The chief cause of thus neglecting the clay soils is the difficulty and expense of cultivating them, and of converting them into pasture, after having been long kept under this system of arable cultivation. It is difficult to convert such land into good pasture, but it has been overcome, and the best and most profitable results have followed.

There is a much greater difficulty in getting a poor, cold, clay farm lot, than one consisting of a poor sandy soil; the capital and ability required for the former being not only much greater, and of a higher order, but the risk is also much more in cultivating the clay, than the sand, as the mode of improving the land and securing good crops on sandy soils by claying is easy and certain, and the turnip and sheep husbandry cannot be adopted on clays.

Besides, the system of cultivating light sand or loamy soils has been so long established, and the Norfolk or four-field system has now become so much the beaten track, that it would be difficult for the farmers who have been brought up to it, to leave off, although a better one were shown them.

The turnip and sheep system, however, cannot be adopted on clay soils, till they are completely drained and subsoil ploughed, and till sand or light and porous matter be added to alter their texture.

Some new impulse must be given to agricultural speculations before the cold, wet clay soil will ever attain that degree of improvement which they are capable of, and which has been effected in the sandy and peaty soils.

The landlords should encourage tenants with capital and talent, by letting farms at low rents under improving leases, similar to the building leases granted in great towns; and binding them by certain covenants to improve the land by complete subsoil drainage and the application of alternatives; and by a proper mode of culture, to convert a certain portion of the arable land into pasture under a particular mode found to be the best and surest for effecting its amelioration. Permanent improvement undertaken by an intelligent and industrious farmer under the security of an improving lease is the best and most profitable mode of permanently improving land.

Perhaps Lord Kames's mode of letting land for this object is the best, with additional covenants binding the tenants to improve, by altering the texture of such soils as would be improved by it. It ought ever to be kept in mind, that the only true and systematic stimulus to improvement of any kind, is the certainty of profit in the outlay of capital. This is the main-spring to all our exertions; without the certainty of occupying his improvements for such a length of time as will enable him to reap the advantage of his outlay, we may be assured that no man will either invest his own capital, or be inclined to borrow money to be laid out in the improvement of another man's estate.

There is no doubt, however, but thin clay soils could be easily improved, and, perhaps, in a much greater degree than the sandy soils have been during the last forty years; and the surface may yet be seen clothed with a rich herbage which shall vie

with that of other soils in producing the best cheese, beef, and mutton.

Clay soils will produce pasture just in proportion to the quantity of decaying active vegetable matter in their composition. If this be abundant, the crop will be rich and luxuriant; and the decaying fibrous roots will form a dry, porous soil, giving a sufficient depth for the rain to sink through the subsoil, where it will run off by the furrow drains. If there be little vegetable matter in the soil, the moisture will make the earthy matter in it collapse and adhere together; and it will form a cold, wet, sterile clay, producing little else but carnation grass, of little value.

Pasture on clay soils should never be converted into arable culture, unless the application of skill and capital will not only repay the additional expense of the culture, but also tend to increase the permanent productiveness of the soil. Without a proper application of skill, capital, and industry on such land, the converting it into arable culture will only tend to diminish the produce, if the free produce under the artificial culture falls short of that which nature itself afforded.

Much may be learned from the practice of market gardeners, in the neighborhood of London and elsewhere. They have two methods of trenching their land. When the soil and subsoil are good to a great depth, they turn the surface under and fetch up a fresh spit from below to constitute the surface for so many years; but when the subsoil is poor or strong clay, they bastard trench it, as they call it; that is, they throw the surface spit forward, always keeping it uppermost, and dig the subsoil by turning it over in the trench without moving it from its place.

Their object in thus trenching their clay soils is to get depth for the rain water to descend, and to give a greater depth of moisture to the roots of plants, and run off to the drain.

If we perfectly drain thin clay soil by furrow draining, and deepen the subsoil by trenching with the spade or the subsoil plough, making it pervious to the moisture which falls on it, that it may immediately sink to a depth below the reach of the roots of the plants, the cultivated surface will be dry; and if we reduce the tenacity of the soil by applying to it those light or sandy substances, which, when well incorporated with it, will make and keep the soil permanently porous and friable, then the land which before produced only a poor crop of carnation grass, or, if arable, of oats, will now produce an abundant crop of wheat, beans, oats, clover, and even turnips; and if properly laid down, and full of manure, will form a rich pasturage for any kind of stock.

When clay soils have dry, pervious subsoils, they become darker in color from the repeated application of manures, and under a proper system of cultivation, they lose their adhesiveness, and become a loamy soil, producing the most fruitful crops of wheat, beans, clover, vetches, cabbage, and naturally produce the best and richest herbage for dairy cows. The milk from cows fed on such pasture produces more cheese and butter than the milk from cows fed on a sandy soil, and of a better quality.

Any thing which will produce permanent friability in clay soils, such as sand, lime, burnt clay, loose, light vegetable matter, or long fermented manure, will alter its texture and improve its quality.

When tenacious soils are completely subsoil drained, and a system of deep or subsoil ploughing is adopted, every time when the land is in summer fallow, if the soil be deepened and the subsoil made more porous; and if never ploughed when too wet, and a full portion of vegetable manure be given to the soil, and well mixed with it, a mechanical effect will be produced, which will change the

nature and texture of the soil, and give to it that friability which is so essential in all productive soils. The rain that falls on it will now percolate through it to the depth of the new-formed subsoil, and thence to the furrow drains.

The soil now receives the circulation of the air, which is carried on by the rains filling up the interstices which the air previously occupied, and the complete drainage draws off all the superabundant water as it falls. By this operation, the earth again receives a fresh supply of air from the atmosphere, which promotes a chemical as well as mechanical action in the soil, and hastens the decomposition of the air and water, as well as the vegetable and animal manure it contains, and thus a liberal supply of the nourishment necessary for the growth of plants is obtained.

Soil that is principally composed of calcareous matter, in minute divisions, becomes a most tenacious, stubborn soil; and, under certain circumstances, as sterile as the most worthless clay. Calcareous matter, therefore, although reckoned a valuable constituent in a soil, becomes an evil when it composes the greater part of it.

Calcareous clay, when thoroughly dried, falls to pieces like burnt lime, whenever it is again wetted. Every poor clay soil may be much improved by paring and burning the surface, after it has been completely drained.

This is the first step that ought to be taken towards ameliorating such a soil; and the more clayey the soil is, the deeper ought the soil to be burnt. When the burnt surface is mixed with the soil to the depth of the furrow, it acts as a coarse sand, and makes it more friable and porous, by converting the matter, which was before damp and adhesive, into a dry, friable, warm soil, permanently improved, and capable of producing luxuriant crops of every kind.

If we can get depth and friability to the subsoil of strong adhesive clay, we thereby prevent stagnant water from injuring the roots, and give to the plants the liberty of sending their roots to a greater depth in search of nourishment.

In all rich soils there is vegetable matter in every state of decay, and the greater this portion of decaying vegetable matter is in strong clay soils, the greater is its productive powers. Besides this, decomposing vegetable matter will tend to keep strong clay land loose, friable, and porous.—*London Farmer's Magazine.*

REMARKS BY EDITOR N. E. FARMER.—When clayey land has a moderate descent, it may be greatly improved, at a small expense, by ploughing it into lands or beds of two, three, or four rods in width, according to the degree of moisture, and leaving the dead furrows for drains, and making a drain at the head of the lands, so that the water from higher lands cannot run over them. In this way we have prepared lands before too wet, so that they are sufficiently dry, and in a dry season more sure and productive than common tillage lands.

SMOKING WITH SULPHUR.

In England, the fumigation of plants with sulphur, to destroy plant lice, aphides, the turnip fly, insects on trees, where the top could be covered or exposed to the suffocating fumes, has been for some time practised with great success. To most animals and insects the fumes of sulphur are almost instantly fatal. The rationale appears to be this: The smoke of sulphur immediately combines with water when brought in contact with it; and in this way, by combining the smoke of sulphur, in leaden chambers, with

water that covers the floor, and is frequently agitated, the sulphuric acid of commerce is formed. Thus, when the fumes of sulphur are brought in contact with the moist surface of the lungs, or breathing vessels of animals or insects, sulphurous acid is usually generated, and the lungs refusing to act under such circumstances, suffocation is produced. Of this, any one can easily satisfy himself by experiment.

Taking the hint from these facts, it was proposed to attempt the suffocation or destruction of the wheat fly or grain worm by fumigation on its first appearance, and we are happy to learn it has been tried the present season with entire success. It is stated in the Amsterdam paper, (a journal on the Mohawk, in Montgomery county,) that a farmer in Herkimer has preserved a large wheat crop from the worm the past season, by using brimstone in fumigation liberally, while all around him, who did not adopt this preventive, had their crops seriously injured or destroyed. The brimstone was prepared by melting, and in this strips of old woollen cloth were dipped. These fixed on sticks, and fixed in different parts of the field, were set on fire, generally at evening. The matches were given in the greatest numbers to the windward side of the fields, and the offensive and destructive smoke, of course driven over every part, proving fatal to the insects that inhale the gas. About one hundred pounds of brimstone were used to one hundred bushels of sowing, and the preservation was complete; thus proving, in this instance at least, a remedy equally cheap and efficacious.—*Genesee Farmer.*

TO DRY A COW OF HER MILK.

Circumstances render it necessary to stop the lactescence action in cows; and when this occurs, all that is absolutely required is, to make a liquor by pouring into a fresh rennet bag two quarts of pure well, spring, or rain water: reduce the quantity of the liquid, by boiling briskly, to about one quart, and strain it. Then let it cool to a lukewarm temperature, and give it as a drink to the cow. In forty-eight hours she will be dry. For some days, her food should be dry and unsucculent—no water being allowed.—*Maine Cultivator.*

GROWTH OF PLANTS IN CONFINED AIR.

It is now well known that a plant flourishes as well, or better, when grown in soil in a transparent vessel, with the external air excluded, than when exposed to its influence. Mr. Leeds, druggist, corner of Atlantic and Court Streets, Brooklyn, has a monthly rose in a large glass jar, planted in the usual soil. This jar is hermetically sealed, and yet the plant has flourished, its leaves being of a healthy green; and it grows faster, and blossoms earlier, than any similar plant exposed to the atmosphere. It has been kept more than two years in this state, having been opened only twice to clean out the grass, which grows, also, more rapidly than from the pots exposed.—*Mr. Partridge.*

IMPROVED FENCE.

The friend of improvement in every thing, I deem it my especial duty to suggest to those who have lands to enclose, the propriety of making trial of a species of fence of which I have recently had a description, and which is said to be both cheap and efficient. The posts are made of common clay, struck in moulds of the desired size, and burnt in

kilns, the same as bricks. These posts are perforated with holes of the size of a common pipe-stem, and are either three or four in number, as required, and are made before burning, or in the mould. The posts are set in the soil, after receiving a coat of coal tar. Wires are then passed through the holes, from post to post, properly secured, and coated with coal tar or paint, to preserve the surface from atmospheric action, and prevent rust. This fence is cheap, looks well, and is very durable. — *Germantown Telegraph.*

NOTICES OF PUBLICATIONS.

JEWETT'S LECTURES, POEMS, AND WRITINGS, ON TEMPERANCE. — Dr. Charles Jewett is known, in most parts of New England, as a zealous, devoted, and able advocate in the cause of temperance, in which he has labored most assiduously for about ten years. He has doubtless done more in this part of the country than any other man in this work of benevolence and philanthropy. His book is written in the independent, and clear manner, which has ever characterized the author in this useful cause. The temperance reform may justly be regarded as one of the greatest improvements in agriculture, saving expense, and preventing that hurry, confusion, and indiscretion attendant on excitement from the use of alcohol. The work contains 200 pages, 12mo., neatly bound in cloth, and embellished with a very accurate portrait of the author. Published by John P. Jewett, 23 Cornhill.

THE AGRICULTURIST'S GUIDE AND ALMANAC, FOR 1850. New York, B. G. St. John, 140 Fulton St.; Rochester, N. Y., J. G. Reed & Co. — The astronomical calculations are by David Young, who is distinguished for his profound researches and accurate estimates. The agricultural department, by a practical farmer, is varied, and, for an almanac, very extensive, containing a large amount of useful matter, with numerous embellishments and illustrations. It contains 82 pages, at the very low price of 12½ cents.

THE PLOUGH, LOOM, AND ANVIL, by Skimmer, for July, contains an interesting variety. With this number, the second volume of this valuable work commences. A prominent feature in this work is the able advocacy of the rights of the farmer, and his claims upon government for encouragement in that great and long-neglected interest, which is of more importance than all others combined.

FLORAL SHOW.

In the former part of last week, there was a most beautiful and splendid show of flowers at the hall of the M. H. Society. There were also fine grapes, peaches, &c., from the hothouse. Only a very few baskets of strawberries were exhibited, owing to a partial failure of the crop from dry weather.

ECONOMY OF TIME. — The Chancellor d'Aguessau, finding that his wife always kept him waiting a quarter of an hour after the dinner bell had rung, resolved to devote the time to writing a work on Jurisprudence. He put this project in execution, and in the course of time produced a quarto work of four volumes.

THE SWEET BRIER.

BY BRAINERD.

Our sweet autumnal western-scented wind
 Robs of its odors none so sweet a flower,
 In all the blooming waste it left behind,
 As that the sweet brier yields it; and the shower
 Wets not a rose that buds in beauty's bower
 One half so lovely — yet it grows along
 The poor girl's pathway — by the poor man's door.
 Such are the simple folks it dwells among;
 And humble as the bud, so humble be the song.

I love it, for it takes its untouched stand
 Not in the vase that sculptors decorate;
 Its sweetness all is of my native land,
 And e'en its fragrant leaf has not its mate
 Among the perfumes which the rich and great
 Buy from the odors of the spiey East.
 You love *your* flowers and plants — and will you
 hate
 The little four-leaved rose that I love best,
 That freshest will awake, and sweetest go to rest?

THE OLIO.

A BLUSH. — What a mysterious thing is a blush! — that a single word, a look, or a thought should send that inimitable carnation over the cheek, like the soft tints of a summer sunset. Strange, too, that it is only the face — the human face — that is capable of blushing. The hand or foot does not turn red with modesty or shame any more than the sock or glove which covers it. It is the face that is in heaven! There may be traced the intellectual phenomena with a confidence amounting to moral certainty.

"The air is perfumed with the sweet breath of the new-made hay."

"I say, Tom, isn't it lucky that fellow's eyes are cocked?" "Why so?" "Because if they were a *match*, his red nose would surely set them on fire."

There are over a thousand princes in Germany, great and small, who receive annually from the people over two hundred millions of dollars; while a laborer works eighteen hours out of twenty-four for seventy-two cents per week.

A schoolmaster, driving oxen, and wishing to express himself in scholastic style, addressed his team thus: "Haw, Buck, and, also, Bright!"

Court the company of the learned and the conversation of the aged; their discourse is often more useful than any book you can read.

There is nothing more dangerous to the virtuous than association with the guilty who possess amiable and attractive qualities.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, JULY 21, 1849.

NO. 16.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

SAVING MANURE.

In the busy season of summer, the farmer will, generally, have but little time for making manure, by collecting and preparing various materials; but he should diligently attend to saving all manures produced by his animals, as, without care, there is a great loss, at this season, by the hot sun, drying winds, and occasionally drenching rains.

Allow animal manures to lie only a few months, exposed to these wasting influences, and more than half of their virtues will be dissipated. A little labor will save manure from waste, and pay fourfold the expense. Place the manure under shelter, or, if this cannot be done conveniently at this busy season, place it in the shade, as the rains of summer will generally penetrate far into a heap. And to save the liquid part, and extend or divide the solid part, so as to prevent heating, mix loam, sand, or mud intimately with the manure. By adding mud, peat, muck, or clay with manure for dry lands, and sand, gravel, or light loam with that for clayey or wet lands, the texture of the soil will be permanently improved by the application.

When we consider that the farmers of New England are proverbial for their economy, we can hardly account for their allowing of so great a waste in manure. They would cautiously guard against the waste of a crop, even to the amount of a single dollar, or a dime, and yet they allow their manures to be wasted to the value of many dollars annually. If a hen, squirrel, bird, or any other small animal, is known to be feasting daily on the labors of the farmer, it is carefully guarded against, or the crop secured, to prevent the petty depredation.

But old Sol may pour his scorching rays upon the manure heap, the parching winds may carry off its fine gases, and the rains may pour in floods upon it, and carry off in solution its most valuable product; and all this is unheeded by thousands, yea, hundreds of thousands, of provident farmers — provident they intend to be, and so they are generally, but on this subject they have not reflected.

When cultivators have given this subject a thorough investigation, they will no more allow a waste

of the materials that produce crops, than allow animals to devour crops without permission. We hope that every man who tills the soil will give this subject a candid examination, and act upon the light which must beam upon the reflecting mind; and the consequence will be a saving of manure to the amount of millions of dollars annually.

HAY CAPS.

Caps for the protection of hay are very convenient and economical, especially in changeable weather. Sometimes caps may be used several times in one season, and make sufficient saving to pay the whole expense in a single year. In some cases the amount saved in one storm has been sufficient to pay the whole expense. Caps will cost about thirty-three or forty cents apiece. By the use of one, a hundred of hay would sometimes be saved in excellent condition, which would be nearly worthless without such protection, making a saving of forty or fifty cents; and in some years of scarcity of hay, the saving would be, in a single instance, sixty or seventy cents to each cap, at once using. Besides saving hay from damage, there is a great saving of labor, as it requires much time to open and dry hay that has been wet in the heap; and the whole business of haying is expedited by the use of caps, and the hay is secured in better season, making a great saving in the quality of the last that is procured, which is often much injured by long standing. We hope that farmers will try this mode of securing hay, at least in a small way, that they may judge from experience.

Old canvas or sails are sometimes used for caps. Drilling, or close stout sheeting, is a convenient and excellent article for caps. Purchase that which is one yard and three or four inches wide, and make the caps of two pieces sowed together, about two and one fourth yards long, making the caps a little more than two yards each way. Two yards square will answer, but a quarter or half in addition is better.

Turn up the corners one or two inches, and sew them; into these loops put a line or cord, with a loop

about two inches long, and fasten down the corners with small sticks, about twenty inches long, run upward into the hay. Put up the hay in cocks, as usual, when a storm is expected, having it pretty well elevated in the centre, that the cap may throw off the water, which it will shed like an umbrella.

Farmers who have never used hay caps, and have doubts as to their utility and economy, would better have them made the size of sheets; and a little careful usage will not injure them, and the storms will whiten them, and when haying is over, the good housewife will find a use for them.

NEWLAND'S STRAWBERRY.

Many strawberry plants were sold in this section last year, and early in this season, under the assuming and imposing name of "*George Newland's Celebrated Mammoth Alpine Strawberry*," purporting to be a new and superior variety from Palmyra, N. Y.

Many persons, who have tried these strawberries, pronounce the transaction an imposition, as the strawberries are small, and unworthy of cultivation, bearing a strong resemblance to the Wood strawberry. One person remarks that he lost ten dollars by setting this variety. Whether thorough experiments have been made or not, we cannot tell. We set a very few plants rather late, and have not had an opportunity to judge of their merits, excepting we can confirm the general statement that they resemble the Wood.

We give this notice as a caution to those who are too ready to believe great stories and become the dupes of imposition. The exaggerated accounts of this strawberry ought to have convinced every one of common experience that they were misstatements, for there is no strawberry in the world that is equal to what is claimed for this.

The great evil of such deceptions is, that they retard improvement. If the agricultural community are occasionally gulled in this way, they grow cautious about receiving articles of superior merit, even on good authority. They are led to think that the extra price is a sign of imposition.

POTATOES.

Though this is not the time of year to put it in practice, yet it is the time to see the evil effects of other plans, and therefore I mention it now. I believe I got the idea from some one of your correspondents, some years since. When you get up the potatoes in autumn, instead of putting them in hogs, or pies, as they are called, mark out in a level place ground three feet wide, level it about two or three inches above the surface, spread your potatoes upon it one layer thick, then put two inches of soil, then a layer of potatoes, then soil, and so on, gradually coming up to a ridge. At first a very slight quantity of soil will do; but before winter sets in, they require a covering of six inches, and some fern or litter over all in frost. This plan seems tedious, but is in reality done as quickly as hogging, or very nearly so. It keeps the potatoes excellent to eat, preserves them from rot better than any plan, and for seed nothing can beat it. I have been planting the last fortnight, and the seed taken out of these earth

hogs is just as it was when taken out of the ground in autumn, the eyes just showing, and the skin fresh, healthy, and bright. My gardener had a great prejudice against this plan at first, but now, after three years' practice, says there is nothing like it. I believe it does much to invigorate the potato plant, as there is no vital force lost in pushing sprouts. I am aware that gardeners often keep their early kidney seed in outhouses, &c., upon this plan, but this cannot be done with a large quantity for field culture, added to which, I find the potatoes keep much better, both for eating and seed, than when spread in a cellar, on a granary floor, or packed in barrels. — *English Paper.*

REMARKS BY EDITOR N. E. FARMER. — The foregoing method, or some similar plan, is followed for the preservation of potatoes in some sections of Pennsylvania, and in other mild regions, without any regard to the rot, as it has long been in practice. In this section, the cold is too severe for this mode, unless unusual pains are taken to heap up the earth or litter over the potatoes.

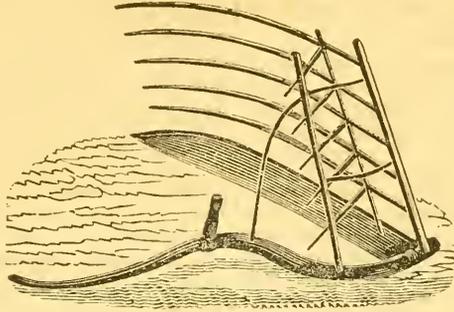
HINTS ON HARVESTING WHEAT.

As the time for harvesting wheat is fast approaching, I submit the following suggestions, through your paper, to the wheat-growers of this country. I am one of those who believe it best to cut wheat just so soon as it will do — that is, when it is "in the dough," as we term it. Having two neighbors, some five years ago, both thriving farmers, one contended for cutting wheat when in the dough state, while the other as firmly contended that it should stand at least a week longer, until it was thoroughly ripe. At that time, I thought them both on extremes; but in the harvest of 1845, I determined to test the matter by a fair trial. Accordingly, in a field containing ten acres, I cut and shocked up six acres in one day when in the dough, letting the other four acres stand one week longer before I cut it. The result was, the first cut stood up well in the shock, the straw being stiff and the heads straight. In the second case, nearly all the shocks fell down, (there happened a storm of wind and rain before it would do to thresh,) in consequence of the straw being broken and limber, and the heads being curled. The last cut was more damaged by the rain than the first. I then threshed it out of the shock, keeping it separate; and on comparing the two, the first cut showed a plump, clear-looking grain — the last, a grain somewhat shrunk, and of a darker brown color. When made into flour, the latter showed a yellowish cast, while the former was almost as white as snow. The first cut did not shatter out and waste in handling, like the latter. The straw of the first was bright, and equal to hay to feed cattle on in winter, while the latter was comparatively worthless. By what natural process the sap ascends the stalk after it is cut, so as to prevent the grain from shrinking, I leave for the scientific to determine. It is a well-known fact among farmers, that Indian corn cut and shocked up after the blades are entirely dry, will turn bright and be good feed for cattle — from the substance remaining in the stalk, I suppose.

HARTSVILLE, 1849.
— *Philadelphia Dollar Newspaper.*

C. S.

If you would not be forgotten as soon as you are dead, either write things worth reading or do something worth writing.



GRAIN CRADLE.

This is truly a labor-saving implement, doing work in a neat manner, in good hands, and with great expedition, having decided advantages over the sickle, with its slow, tedious, back-aching operation. The gain in despatching the harvesting of grain is not merely in doing it at less expense, but often the greatest advantage is in performing it in the very nick of time, and thereby saving grain from a storm, or standing too late.

Frequently all the grain on the farm needs to be cut at the same time, when all the help usually employed could not do it with the sickle, in proper season; and this saving, by expedition, in the use of this valuable implement, should be taken into consideration as highly important.

Grant's and Wilcox's premium cradles are regarded as the best now in use. They are neat, light, strong, and made very convenient by adjustable fingers, so that the operator can regulate them to suit himself, which renders these modern improvements far superior to the old cradles, with all their parts and proportions permanently fixed.

THE CROPS.

The Sunbury (Pa.) Gazette says, that in that vicinity there will be a more abundant crop of wheat, rye, oats, and grass, than for many years. The potatoes, too, will yield well, and corn has much improved.

THE SPIRIT OF PROGRESS.

Large as are the strides, and splendid as are the triumphs of the spirit of progress in the nineteenth century, she still numbers her enemies by thousands. Chinese walls and Chinese hatred to improvement still hold some sway among many of our people. They love and would foster "the good old way!" Why, in the meridian time of "the good old way," ships required months to perform a voyage from Liverpool to New York; now, the winds and tides, held in vassalage by the spirit of progress, wait the vessel from world to world in a single fortnight! By "the good old way," a bark was polled and coaxed from New York to Albany in twenty days; now, the superb vessel asks but ten hours to accomplish the same journey! According to "the good old way," a press which could strike off a thousand newspapers

in a night was viewed in a light but little removed from the marvellous; now, a press in the same time hurls from its great iron hands fifty thousand sheets! By "the good old way," nice old ladies, who happened to be blessed with ugliness and black cats, were hung up or drowned as witches; now, our nice old ladies are honored only less than our handsome young ladies! By "the good old way," monarchs were clad, by even Americans, in the light of divinity; and now, the Yankee

"Would shake hands with the king upon his throne,
And think it kindness to his majesty."

By "the good old way," Columbus would slumber an unknown man in an unknown grave. But the spirit of progress pointed his ardent eyes to another world, baptized by another sea, in the far-off Hesperides; and that race which is the crown of humanity, now swarm on the fertile soil of that new earth, to chain matter to the car of civilization, illumine mankind with the beams of liberty, and send hoary errors crumbling away in the awful shadow of reform. When you can bind the wing of the eagle with a cobweb, when you can stop the world in its motion by a priestly dictum, then attempt to arrest the giant of progress in his majestic career. He who does attempt it before these labors have been accomplished, must only be crushed himself beneath his mighty feet. — *Selected.*

INDIAN CORN.

We ventured a prediction, two weeks ago, that the exports of Indian corn during the month of June, would exceed the quantity of the same article shipped in the month of June, in the memorable year of 1847, when prices ranged from eighty-eight cents to one dollar seventeen cents per bushel. The official statement of the exports for the month of June have appeared in the New York shipping list, and the quantity of corn exported is stated at 1,287,369 bushels, greater by 550,486 bushels than was shipped in the month of June, 1847, and greater, we believe, than was ever shipped in any previous month. Yet great as this amount is, it is but a tithe of the quantity of grain imported monthly into Great Britain, to which country almost the entire of our exports of breadstuffs tend. — *Albany Argus.*

True glory consists in doing what deserves to be written, writing what deserves to be read, and making the world happier and better for having lived in it.

For the New England Farmer.

SUCCESSFUL APPLICATION OF LABOR AND SKILL.

MR. EDITOR: On the 30th of June, I visited a friend, living on the banks of the Charles, about twenty miles south-west of Boston, who has occupied his farm six years. It contains seventy acres, fifty of which are tillage and pasture, the remainder interval and meadow. The low lands are of first quality, and yield grass in abundance for the feed of the stock. The surface of the upland is uneven — soil a mixture of sand and clay, free of stone, and easy of cultivation. When the present proprietor came in possession, the produce was small, the pastures were run out, and of course the stock reduced. His attention was first directed to a renovation of his pastures.

This was done by means of the plough, and the application of compost manure. He has spared no effort to increase manure in every way possible. His swine have been co-laborers in this department. Pastures that were covered with dry moss and wild bushes, are now blooming with white clover. Nearly all his pasture ground has been reclaimed. His fields have been made productive of a large burden of grass, by the use of the subsoil plough and manure. Where this plough has been used, the beneficial effects are most apparent. The land endures the drought much better than the adjoining land. We have often heard this stated, but never saw it so distinctly illustrated as in his fields at the present time. The difference is as great, as is usually seen on adjoining pieces, where a coating of manure has been spread on one, and not on the other.

Our attention was directed particularly to his stock. He has seven cows, and several heifers coming forward. Some of his cows are old, but all of them appear to be superior animals. We were informed by his daughter, who takes the charge of the dairy, that these cows yielded, during the month of June, two hundred and fifty pounds of butter, beside the milk and cream used by a family of twelve persons. This, we think, speaks well for the cows, and the pastures in which they feed.

We noticed one heifer, now about to have a second calf, and learned that she will be three years old in October. This animal, when young, was fed entirely on hay and water, and not on milk and grass, as is usual. Her size is large, and she appears like a cow four years old. She is a fine animal for milk, as was her mother before her. Among these cows are indications of the Durham, Ayrshire, and Devon blood, but in what proportions we are not informed. They are all reputed to be natives; and so far as milking properties are concerned, we think as well of native blood as any other.

The fences on the farm are of wood, except those bordering on the highway — consequently easily moved. The lots are alternated from year to year — sometimes cultivated with corn or potatoes, sometimes mowed, and sometimes fed as pasture. But little attention appeared to be given to the raising of beets, carrots, and onions — crops with which we have been familiar, and which we think could be raised on these lands to advantage.

Within the six years last past, the crops on the farm have trebled in amount. But the best effect of all is seen upon the younger members of the family, four or five of which are able to labor to advantage. The eldest daughter, now about twenty, takes the entire charge of making and preparing the butter for the market. Others at this time are gathering and preparing straw for bonnets. The father and sons are laboring together in the field. Having spent the better part of his life in pointing out to others the

way to heaven, he now feels it to be his duty to provide for himself and family on earth.

Notwithstanding the proprietor has realized a fair return for his labor in his annual crops, he is of the opinion that the increased value of the farm, in its improved condition, is equal to one dollar a day since he has been upon it. As this communication is made entirely without his knowledge, I do not feel at liberty to use the name of the proprietor.

July 3, 1849.

P.

EDITORIAL REMARKS. — One mode of improvement mentioned in the preceding communication generally receives but very little attention, and that is alternating the lands with pasturage, mowing, and tillage. We have found that lands, exhausted by pasturing, improved on mowing, so that the grass crop would be more than double the second or third year, and far exceed other lands adjacent, that had been treated the same in past years, excepting they had been mowed for a number of years. On mowing the pasture lands, the grasses become greatly changed after the first year; the pasture grasses disappeared, and those most common in mowing prevailed.

The lands that had become exhausted from mowing, on being pastured, produced more and sweeter feed than those that had been long in pasture; and yet all were under the same treatment previous to one being pastured and the other mowed. The superiority of the feed, on lands recently changed from mowing to pasturing, is seen by animals eating it closely to the ground, while much of the grass on the old pasture is neglected, and if not closely pastured, going to seed.

The great advantage in these changes is in the rotation of crops. Take a piece of land, all in the same condition, and in the same grasses, and mow one part and pasture another for ten or twenty years, and then mow the whole, and the grasses on the two parts, during the first year, will be almost entirely different. But on mowing or pasturing for a number of years, they will gradually assimilate to each other.

Alternating with tillage makes a further rotation of crops, as the crops differ materially from grasses, and extract different elements from the soil, and are, of course, less exhausting to grasses than grasses themselves, or a long succession of grasses.

For the New England Farmer.

STRAWBERRIES.

MR. EDITOR: At a late exhibition of the Berkshire Horticultural Society, there were many splendid bouquets of rich and fragrant flowers, and rare specimens of early fruit; but we saw nothing that attracted more attention than a measure of Hovey's seedling strawberries, from the garden of Mr. Pomeroy, of Pittsfield. Every eye sparkled with delight at the sight of them, and if mouths would tell the truth, we have no doubt but all months would say they watered for a taste of their excellency. Yet how many, may it be supposed, will actually set themselves to work, after thus seeing and longing to possess, to raise *just such strawberries* in quantities to meet the demands of their household? "I have no time for such things," "I never had any luck with a garden, and I have given up trying" are household excuses ready to fall from the lips of the majority, in regard

to which it may be proper to say, that a less amount of time is actually necessary to raise strawberries enough for an abundant supply of this fruit for *any family*, than would be required to wander over the fields, (we say nothing of loss in trampling down grass,) to obtain a meagre quantity of an inferior article.

In regard to luck in this business, it is pretty much here as with every thing else, — good luck cannot be expected without care and pains. It is a wise provision of Providence that requires us to labor for the blessings we invoke, and one that holds good in small as well as large matters. A strawberry plant will not grow successfully if thrown carelessly into the ground, to be choked with grass or more rapid growing weeds. Land for them must be light, that they may root easily, and rich, that they may draw continual nourishment from it, especially in fruiting time. Moisture is very necessary to insure perfect success. Muck lands are highly favorable to their growth, and where nature has not provided them, cultivators will find advantage in giving frequent dressings from the swamp.

It is often said that the strawberry is so apt to winterkill, that its culture is attended with great risk. This may be remedied by covering them with pine or hemlock boughs soon after the ground freezes, and allowing them to remain covered until the freezings and thawings of the season are past. They may then be taken off, the ground manured and forked, and then, if kept free from weeds, abundant crops of great delicious berries may be expected.

July, 1849.

W. B.

EDITORIAL REMARKS. — There is great neglect, generally, in our country, in raising the smaller fruits, though they are highly delicious and easily produced. Some farmers are content with apples, and even those not the best; others have a few cherries, or plums; and some have a supply of pears, and perhaps of peaches. Yet few, very few indeed, have a general supply of small fruits. They require but little land and attention, and the farmer generally has more land than he improves; and a few spare minutes daily, or a few hours weekly, would be sufficient to attend to raising an assortment of small luscious fruits for the family.

It often happens that some members of the family have a plenty of time for this purpose, and would attend to the business with great pleasure, and with much profit by way of instruction, if the subject was introduced and the way prepared for it.

For the New England Farmer.

PRESERVATION OF TIMBER.

MR. EDITOR: In your last number, (June 23d,) you take notice of experiments made in England, for the preservation of wood, by soaking in lime-water. I have no doubt but it will answer the purpose very well, although I never saw it tried; but while I was living in the east of Scotland, we were in want of some clothes posts. Having some large fine beech-trees recently cut, we thought of trying them, but were afraid they would not stand long, beech being a wood that is very liable to rot, when wet and dry alternately. There was a pond on the plantation, into which we put a quantity of oak and larch bark mixed. When the bark had been in the pond eight or ten days, being stirred up three or four times during that period, the timber being sawn eight or ten inches square, and the length required, they were

immersed for three months, being taken out once a fortnight and turned during that time. It was then piled up till properly dried. It formed a crust so hard that a plane would hardly act upon it; and I have no doubt they are good now, although it is now sixteen years since they were put up. The posts were placed into a stone socket, four inches from the ground. Any one near a tannery can easily try the experiment.

J. C.

June 27, 1849.

For the New England Farmer.

FRUIT, ETC.

MR. EDITOR: I have taken some pains to form a company to take your New England Farmer, and I believe it gives good satisfaction. As far as agriculture and horticulture are concerned, it is the very thing a farmer wants; and for myself, I cannot make it interesting to read a long story, and when I have read them, they are of no benefit. I have also got one of your Fruit Books, which I think is appropriately named "a book for every body." It really ought to be in every family in town. Willington is truly a reading people; but I am constrained to say they read a great deal on party politics and romance, which are not profitable. Could our people take a deeper interest in horticulture, it would confer a great blessing on the present and rising generations. I am now in my sixty-seventh year, and yet I take a great interest in the cultivation of fruit. Three years ago last spring, I set some Baldwin scions on a tolerable large tree, but did not expect to live to see them bear fruit; but should the apples now set prosper, there will be fruit next fall.

I must say, however, our people are beginning to wake up on the subject of fruit growing. There has probably been more done in the two past years, than in twenty years previous.

I have more than thirty children and grandchildren, all living within twenty miles. Two years ago last spring, I set out an orchard of about seventy-five trees, of the best kinds, in complete rows, all numbered, and they are growing finely. The orchard stands on a high elevation, well adapted to the apple tree. I have taken so much interest in this young orchard, that I have erected a stone monument with this inscription — "Set out by Amos Preston, 1847."

Perhaps I might have been influenced to this by reading, in the Albany Cultivator, about the monument erected where the old Baldwin apple-tree grew in Woburn, in your state. I have a number of that variety in my young orchard. I hope my posterity, by the blessing of God, may be permitted to eat of the fruit that their father and grandfather has taken so much pains to introduce and propagate.

Now, a few questions and I shall conclude. I said this orchard is on an elevation: it is therefore hard getting manure on to it from my barn; but there is swamp manure near by, that would be convenient to get to the orchard. I have laid away two horses by the side of the lot, and covered them with swamp muck, a layer of muck, then of horse, and so on. They were put there last August. Now, I wish to know when the manure will be fit to use; and whether I cannot benefit the orchard by this manure. Shall I spread it broadcast over the whole lot, or not? Does not Dana say that it has been actually proved, "that a dead horse will convert twenty tons of peat into manure more lasting than stable dung?" This is a great story. How much discount shall be made?

I read also in your paper, No. 12, concerning manure made from tan, by Robert Bryson, Esq., of Cumberland county, Pa. As we have a quantity of tan, we should like to make the best of it. If there is any way you can get information from Mr. Bryson, himself, I should be very glad. My son has a tan-

yard. It has been in the name of Preston more than eighty years. We have made use of it in a small way, and I believe we may improve upon it.

AMOS PRESTON.

WILLINGTON, Ct., July, 1849.

EDITORIAL REMARKS. — Mr. Preston shows a noble example in planting for posterity; and had he not done it himself, his children should erect a monument to the memory of a kind parent, who labored zealously in his advanced age for their welfare. We hope that he will enjoy a green old age, and share with his numerous descendants the happy results of his industry. Contrast his commendable example with that of the selfish churl who will not plant, even in the meridian of life, lest others reap; though he does not scruple to reap what others have sown.

In managing his orchard, we would advise Mr. Preston to keep it ploughed, and not take off crops, unless the land is well manured. Let swamp muck lie over winter, after dug up, that freezing and exposure may improve it, then add ashes, or lime, or both, in small or liberal quantities, according to the expense. If it has been improved by exposure, as we have recommended, it will be fit to use in a month or two, or it may remain for months. It will be better for being forked over.

The more dead horses there are cut up and mixed with it the better. If horses are cut into rather small pieces, and mixed with muck, and the heap is forked over once or twice, the manure will be fit to use after lying the greater part of one warm season. After forking over the heap, apply some more muck, or some loam on the top and sides, lest some pieces of flesh come to the outside and become dissipated, wasting the manure and infecting the air.

There will be the greatest gain from the manure, by applying it under the trees, or a little wider than the branches extend. It should be ploughed in, that it may come near the roots, and if it contains any animal substance, it should be buried, to prevent loss by the escape of gases.

When an orchard is too far from the barn to haul manure to it, so as to make it rich for the production of other crops, it is best to pasture it with sheep, or young animals that are not taken out by night: then nearly all the food that they consume is applied in manure to aid in keeping up the fertility of the soil, and from small animals it is scattered over the land. This is far better than mowing, as we have often found by experience. And the consumption of fallen fruit is a great protection against insects.

Spent tan, put in layers with lime or wood ashes, will become decomposed in a few years, so as to be an excellent manure for fruit trees. After lying many years, not in very large or deep heaps, and becoming decomposed, it would be a good manure without any other substance. We have raised large crops on lands on which old hemlock-trees, bark and all, decayed, and the land was far richer where such trees decayed.

As to the discount on the statement proposed, we say it should be liberal, but cannot define the exact percentage. A cord of horse-flesh, with one or two bushels of lime, or ten bushels of ashes, mixed with

a few cords of muck, would make excellent manure. But we think there would be no advantage in scattering the remains of one old horse, especially a poor one, and such are usually used for manure, through twenty tons of muck.

HOUSES OF UNBURNT BRICK.

Within the last five or six years, this style of buildings has been pretty extensively introduced into the Western States, especially in Illinois and Iowa. Houses constructed of this material were supposed to combine many advantages that were possessed by no other mode of erecting walls, and consequently there were many enthusiasts found, who fancied they would ultimately supersede all other descriptions of buildings for farm-houses, and out-houses, for horses, cows, &c. In South America, Mexico, and in many countries on the continent of Europe, unburnt bricks have been employed in the construction of walls for houses, for a very long period of time, and it has been found that when pains were taken in the preparation of the material for the walls, they would successfully withstand the greatest severity of wet and cold for many generations. Walls of this description should not be raised higher than one story, and should be built upon a stone wall, raised at least thirty inches above the surface of the ground, and should either be protected by a widely projected roof or a verandah. The stucco or plastering should not be laid on the outside of the wall until it has had time to settle, and become perfectly dry. If the walls are built in the spring, the plastering might be put on in the following autumn; but it has been found best in most cases to delay the plastering until a twelvemonth from the period of the erection of the building. Sand of the coarsest and sharpest quality should be procured for the preparation of the mortar, and only a sufficient quantity of fresh-slacked lime, to firmly set the sand, should be employed in making the first coat, which, if put on in the month of October, or when the weather is moderately warm, will be perfectly free from cracks, and by the aid of a second coat of plastering, will prove, in most cases, impervious to water for a very long period of time.

Unburnt brick walls are admirably adapted for stables, and other out-buildings; but where stone can be conveniently procured, the latter should be preferred, as it is obvious they will make the most durable wall.

The following very practical remarks from the Prairie Farmer, on the subject, may be found interesting to a portion of our readers.

When this mode of building dwellings for our wet and cold climate of the north was proposed, some five or six years ago, we had very little faith in it. But when, at a later period, the opportunity was offered of examining houses so constructed, our opinion was modified considerably; and we have long been convinced that dwellings, of peculiar construction as to form, might be made of unburnt bricks, which would greatly reduce the cost of building, and would possess several excellences over those of any other construction.

There is no doubt, however, that attention must be paid to the form of the building when constructed of this material. A two-story house, with close Grecian cornice, is not a fitting shape for it. Water and frosts together have too convenient access to the walls, and will be pretty sure to act upon them, especially if the house should be provided with no spouts to carry off the roof water; nor, should these be added, would the matter be much mended.

The proper form of a house to be built of unburnt brick, is that of one story, or perhaps story and a half

cottages; with a wall from twelve to fifteen feet high, with sharp roof and largely projecting eaves, so as to throw off all water from the walls, and preserve them dry. If a good high stone foundation is laid, there need be no difficulty—these preliminaries being adhered to—in securing a good house.

The last number of Ranlett's Architect contains some valuable hints as to detail in constructing of this material. The size of the bricks may be $6 \times 12 \times 18$, or $9 \times 12 \times 18$, or 12×12 . The second size will be found quite heavy to handle. In laying up the bricks, we should prefer lime mortar to that made of clay. It will aid in causing the covering cement to adhere. But hear Mr. Ranlett.

"Any soil will be found suitable for making bricks to be dried in the sun, except sand or gravel, and can usually be obtained in making the excavation for the cellar of a house. A proportion of two parts clay or loam to one of sand or fine gravel, and of straw, about one hundred pounds, cut in lengths of five or six inches to three hundred and fifty bricks; the clay should be removed to a level spot, and mixed by treading with oxen or horses, which can be done in two or three hours. A better material even than straw, to mix with the clay, when it can be obtained, is salt hay, on account of its toughness and durability. We have seen it used, in mixing mortar, in place of hair.

The moulds for the bricks should be made of boards, strongly fastened at the corners, and holes bored in the bottom to facilitate the discharge of the brick; when placed to dry, the bricks should be laid upon their sides, and dry sand sprinkled upon them to prevent them from cracking in the sun; in two or three days turn them upon the edge, and let them remain three or five days, according to the power of the sun, when they should be piled up so as to admit of a free circulation of air, and protected from the rain. In two weeks they will be fit for use. If a cellar is to be made, the wall should be of stone, and two feet of the top laid of lime mortar or cement: the latter would prevent dampness. In laying the bricks, clay mortar may be used, but mortar of lime and sand would do better. The roof should, in all cases, project from two to four feet, according to the height of the building. If one or two full stories, the roof may be flat; but if a story and a half, it must be high to relieve the lateral pressure on the walls. The coating or plastering on the outside of the walls should be of the best description; it may be made of equal parts of lime, ashes, sand, and clay, and thoroughly mixed with water, having a strong infusion of glauber salts." — *Ohio Cultivator*.

REMARKS BY EDITOR N. E. FARMER. — It seems to be the opinion of many in this part of the country, that unburnt brick houses will not endure the severe cold and sudden freezing and thawing incident to our climate. That the water getting into the cracks of the bricks, or soaking into them, and then frozen hard and suddenly, will cause the destruction of the building. Perhaps this evil may be prevented by the coat of water-proof cement applied to the walls.

The subject is worthy of consideration, especially in regions where clay abounds and fuel is scarce, and building materials are generally scarce and dear. We hope that some persons will try experiments in building with unburnt bricks. They will cost but a trifle, out-buildings or fences may be made in this way for trial.

Tart words make no friends: a spoonful of honey will catch more flies than a gallon of vinegar.

IMPROVED FENCE.

The friend of improvement in every thing, I deem it my especial duty to suggest to those who have lands to enclose, the propriety of making trial of a species of fence of which I have recently had a description, and which is said to be both cheap and efficient. The posts are made of common clay, struck in moulds of the desired size, and burnt in kilns, the same as bricks. These posts are perforated with holes of the size of a common pipe stem, and are either three or four in number, as required, and are made before burning, or in the mould. The posts are set in the soil, after receiving a coat of coal tar. Wires are then passed through the holes, from post to post, properly secured, and coated with coal tar or paint, to preserve the surface from atmospheric action, and prevent rust. This fence is cheap, looks well, and is very durable. B.

BENSALEM, May 29, 1849.
— *Germantown Telegraph*.

NEW MODE OF PREPARING BONES FOR MANURE.

There are several methods of preparing bones for application to land as manure. One is by calcination, or burning, by which all the organic matter is burned or driven off. This fits the mineral portion of the bones for immediate and efficient action in the soil, in consequence of reducing the bones to a minute state of division, and expelling the oil and gelatine, which, for a time, prevents decay. By this process, however, the animal matter is lost as manure. This amounts to thirty-five to fifty per cent. of the fresh bone according to the age of the animals supplying them, the youngest always giving the largest proportion of cartilage, oil, and gelatine.

Another method is by placing the bones in a compact heap or hogshhead, first crushing them, and pouring over them, from one third to one half their weight of sulphuric acid, diluted with water. This generally effects a speedy decomposition of the bones, and augments the efficiency and intensity of their action, as the sulphuric acid is itself a powerful manure for certain soils and crops.

A less expensive mode, sometimes adopted, is, to place the bones together in a heap, and moisten them with ashes and water, covering closely with muck, manure, or common garden mould. If this be done in a warm room, or in the open air in summer, or in the centre of a bed of horse or other fermenting manure, they will soon dissolve, and be in a fit state for application to the crops, after mixing with mould, so as to absorb their moisture.

Grinding or crushing is the usual method of preparing bones for the soil. They are thus rendered comparatively fine, and are easily decomposed when incorporated in the ground. They are conveniently transported in barrels or sacks, and applied with little trouble either to the muck heap, or sown broadcast or in drills. In this condition, they also preserve the animal matters, (the oil and gelatine,) which are slowly given out by decomposition, and materially contribute to the growth of the crops.

A trial has recently been made, which gives us another, and, in many respects, a method superior to all others. It consists in subjecting them to steam of a high pressure for a few hours, when the oil and gelatine are entirely separated, and the largest bones, skulls, hocks, vertebrae, &c., are easily crushed between the thumb and finger, though retaining their full proportions and form. The fat may be thus drawn off and used for soap grease, for cart or wagon wheels, or for certain kinds of machinery, while the remainder of the extracted matter is useful for manure.

A small boiler for generating steam, with a larger one to hold the bones, and a connecting tube, each capable of sustaining a pressure of twenty-five pounds to the inch, are all that are required for this purpose; or should a steam boiler be already in use about the premises, this would supply the place of a steam generator. Where wood ashes are procurable at fair rates, they are economically used with fresh bones, first by leaching and boiling the bones in the lye. If this process is thoroughly carried out, the oil is converted into soap, and the bones are prepared for ready decomposition in the soil. The spent lye yielded by the soap, and the leached ashes and lime remaining, may also be added to the soil, with the utmost advantage. — *American Agriculturist*.

REMARKS BY EDITOR N. E. FARMER. — There is another mode of preparation, but we have not the proportions of the materials, nor the mode of operation. A strong lye of wood ashes, or solution of potash, will dissolve bones; and farmers sometimes use these substances to soften or dissolve bones, which they give to cows for the bone disorder. Potash is an excellent manure, particularly on gravelly or sandy soils.

AMERICAN ENTERPRISE.

Take the article of calicoes. We now monopolize the whole trade—a trade which, but a year since, the English had the whole control of. Very few cotton goods of this style are now imported at all, and we are fast getting the knack of making the finer dress muslins. Of mousseline de laines, we probably manufacture, at a good profit too, far more than we import. Of cloths there is not one bale of English entered at the custom-house, where there were one hundred five years ago. It is true the English have found great competitors in the French and Germans, who, together with our own mills, have nearly driven every piece of English cloth out of the market.

The English are also losing their great hosiery trade with us, the Germans beating them most decidedly in this article. So with many other articles. In fact, our English competitors are fast losing a market which they have had the almost exclusive monopoly of for years; and a steady perseverance on our part, not depending too much on government aid, but more on our natural energies, perseverance, and mechanical skill, will in time not only give us our "home market," but the markets of the world. — *N. Y. Journal of Commerce*.

DEPRECIATION OF RAILWAY PROPERTY IN ENGLAND.

The English papers received by the last steamer state that the depreciation of railway property in England during the last three months cannot be less than from 40 to \$50,000,000.

This is in consequence of the disclosures in relation to the fraudulent conduct of the directors of their roads. All confidence in this kind of property seems utterly lost.

ASHES AS MANURE FOR GRASS LANDS.

There is scarcely any part of the country where leached ashes cannot be obtained in greater or less quantity; and in the vicinity of asheries, abundance may generally be had. If the following remarks by Count Chaptal are applicable to soils, of whatever materials they may be composed, a knowledge of this

property of leached ashes would, in many instances, be of very great value. At all events, the experiment is easily performed on a moderate scale.

"The ashes, produced by the combustion of wood in our common domestic fires, give rise to some very remarkable results. Without being leached, these ashes are much too active; but after having been deprived by the action of water, of nearly all their salts, and employed in this state, under the name of *buck-ashes*, they still produce great effect.

"The action of the buck-ashes is most powerful upon moist lands and meadows, in which they not only facilitate the growth of useful plants, but if employed constantly for several years, they will free the soil from weeds. By the use of them, land constantly drenched with water may be freed from rushes, and prepared for yielding clover and other plants of good kinds."

It has been frequently supposed that ashes applied to wet, heavy soils, is injurious. This is probably owing to the application being too uneven, and in too large quantities, and to the want of mixing them intimately with the soil. Chaptal says, "Wood ashes possess the double property of amending a wet and clayey soil by dividing and drying it, and of promoting vegetation by the salts they contain."

It is well known, that the evenly spread and intimately intermixed layer of ashes which soils receive by burning the turf, produces extraordinary effects upon grass lands. — *Genesee Farmer*.

TO CURE SWELLING OF THE THROAT IN HOGS.

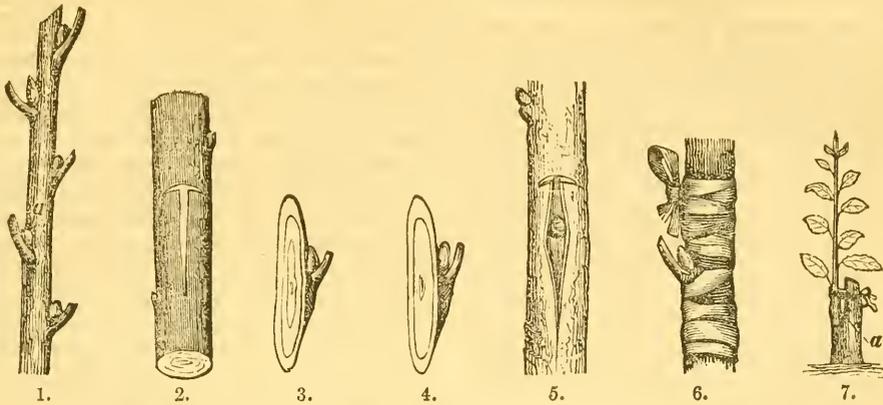
In order to contribute to the usefulness of your valuable periodical, and to inform the public of what I find from experience to be an infallible cure for a certain disease with hogs, viz., the swelling of the throat, I herewith send you a receipt for the disease, with a desire that you publish the same in your work if you deem it of any import, and the same meets your approbation.

Take of molasses one half a pint, and a tablespoonful of hog's 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. — *Farmer's Register*.

THE CAUSES OF THE VARIETY AND VIVIDNESS OF COLORS IN FLOWERS.

The petals of flowers do not owe their beauty to the color that paints them, for that, when drawn off, is dull and dead; neither do they owe their brilliant tints to the skin that covers them. Their lovely appearance is derived chiefly from the bubbles of water which compose their pabulum. Receiving the sun's rays, they are enlivened and brightened by reflection and refraction from those drops of water, and from that spot or point of light being seen in every bubble, and striking to the focus underneath. By these means the whole flower would at times be one blaze of light, had not nature, to soften the same, covered the petal with an upper and an under skin, which curtails their diamond-like rays, and leaves them instead a lightness and beauty unequalled by the most exquisite art of the painter.

Beware of little expenses: a small leak will sink a large ship.



BUDDING.

1. Stick of buds.
2. Stock prepared for the bud.
3. Shield or bud with the wood in.
4. Bud with the wood taken out.
5. Stock with the bud inserted.
6. Stock with the bud tied in.
7. Growing bud tied to the stock.

Budding, though a simple process, that may be readily learned and practised with ease and expedition, is wonderful in its operation. There are many kinds of fruit that can be propagated rapidly only by this process, and by grafting, which is similar. The apple and pear are propagated very slowly and with difficulty by layers, cuttings, and inarching, and almost every variety will fail to produce its like by seed.

But budding affords so easy and rapid a multiplication of trees, that from one tree a thousand may be produced in one year, and each one afford numerous buds for a further multiplication. So that a single tree, of excellent variety, may be scattered all over the country, in a few years, or over the world, so far as civilization, and, consequently, useful arts, adapted to an improved condition of society, have extended.

Any one who would practise budding, and is not acquainted with the operation, should learn from a practitioner, if convenient; but he may learn the art by reading. In this way we learned it, and our first attempts were successful.

The buds should be cut from shoots of the present year's growth, that are becoming ripe or firm, as those very tender or succulent are too soft, and more liable to fail. There is often a great error in not preparing the stick of buds immediately after cut, for the moisture is constantly passing into the leaf; and sometimes on a hot dry day, the buds will be spoiled in two hours, if the leaves remain on, the bud becoming dry and dead.

In preparing the stock, it is better to make the cross cut in a circular form, that the band may cross it, rather than press into the cut. The bark on each side of the perpendicular cut, at the top, should be

raised with the handle of the budding-knife, by lifting, not by forcing it down between the bark and wood, which may disturb the *cambrium*, or new layer of soft matter, called *sliver*, in some sections.

Some years past, it was a general practice to take out the small slip of wood cut out with the bud, which is represented by the inner circle, figure 3. Of late years, most persons, and nearly all who have recently commenced the business, leave the wood in. Old practitioners say, in regard to this new mode, that it is better to take out the wood in buds from rather large, firm scions; but when the scions are small and succulent, it is better to leave the wood in. Beginners will generally succeed better by leaving the wood in, as they are liable to injure the bud or bark around it, in removing the wood. Many bud-ders always leave the wood in, and succeed well, and this mode is the more convenient; and this will give a preference for the American mode over the slower English process. In taking out the wood, if the root of the bud come out with it, which may be known by a minute hole in the bud, at the point marked in the centre of figure 4, that bud must be rejected. This may be prevented by cleaving off the wood with the thumb nail, to the root of the bud, and then cut the wood off there, smooth with the bark, with a thin, pointed knife.

In cutting the bud from the scion, insert the knife below the bud, and take a thin slip of wood, especially if it is allowed to remain in. After slipping in the bud, cut off the bark at the cross cut, as in figure 5. Wind the band closely and neatly around every part of the cut bark of the stock, barely leaving out the bud, as appears in figure 6. As the stock grows, so that the band binds too tightly, loosen the band and retie, and let it remain till the bud is firmly united with the stock.

The time for budding varies with the season, weather, age of trees, rapidity of growth, &c. We usually begin with the plum the first of August, and then follow with the cherry, pear, quince, and apple, nearly or quite through the month, and sometimes into September.

HEREFORD AND OTHER CATTLE.

In a late number of the Mark Lane Express, a writer claims a superiority for the Herefords over the short-horns, on the ground of greater hardness of constitution, which enables them to bear up under severities of climate, seasons of scarcity, epidemics, and exposure to diseases, which few other breeds can withstand. These are important considerations; and if the breed can be found to prove up these characteristics, there will be no difficulty in establishing their fame on an enduring basis; as other prominent and valuable qualities, such as capacity for working oxen, kindly feeders, quick maturers, carrying the greatest weights on the most valuable points, are already generally acknowledged.

As a proof of the high estimation in which they are held, the writer cites the case of Mr. Tompkins, in which fifty-two head of grown animals and calves brought an average of four hundred and forty-eight dollars each. One bull (Phoenix) sold for over two thousand nine hundred dollars. Those sold by Mr. Price, in 1841, consisting of one hundred bulls, cows, and calves, averaged two hundred and sixty dollars each. A cow and calf sold for one thousand one hundred and fifty dollars at auction. Below we give some of his remarks, which are quite to the point:—

I consider it absolutely requisite that a breeder, to arrive at eminence, should be very particular in his selection of materials to found a herd upon; otherwise he will meet with disappointment at the onset, and may be deterred from prosecuting the pursuit with zeal and interest afterwards. This brings me to what should next receive his special attention—"pedigree;" which is of so much consequence that I cannot see how a breeder can proceed in safety without it. To secure the excellences which I wish to perpetuate in animals, I have always found the surest method of doing it to breed from those that have possessed them for generations past; and I cannot discover how any one can be influenced to use a male to any extent with well-bred cows (however perfect in form, coat, and quality) of mongrel descent. The chances are, that his offspring will not inherit his good qualities, but his and his progenitors' imperfections. There are few cows that sufficiently combine the many essential qualities of bull breeders. And it is a growing evil to save the male produce of inferior cows for bulls, thereby making a bad and worse than useless bull of what would otherwise make a good ox.

The color of Herefords is much diversified. It is well known that there are good Herefords of various colors, such as grays, roans, mottled, and white faces, with and without marks of white on the back, bosom, and abdomen; the rest of the body being dark or light red. As a well wisher to the prosperity of Hereford cattle, I much deplore the fashion or prejudice which gives a predominance in favor of a particular color, to the exclusion of all others. To accomplish it, there must be a sacrifice of many good, if not the very best animals, without any real advantage accruing from it. A herd uniform in color is pleasing to the eye of a superficial observer; but an individual with any pretensions to a knowledge of the true character of Herefords will discover the characteristics of the breed, notwithstanding the herd contains animals of every color incident to them. Indeed, it is strongly marked in the late Mr. B. Tompkins's, and his successor, (Mr. Price's,) family of Herefords. Although to a great extent I disregard color, I by no means am indifferent about the coat or covering.

The Herefords, I presume, should have a moderately thick hide, elastic, and affording to the touch that mellowness which is only to be acquired by experience. These are indicative of a predisposition

to acquire flesh and fat, and it is termed quality. The skin should also be covered with a thick pile of flossy hair, which I like to see waft in the breeze, when exposed (as is frequently the lot of Herefords) to all the vicissitudes and inclemencies of the weather, looking as if nature had destined them to endure it, by providing them with a suitable covering. There are many standards of form erected by different judges, but only one can be true; and to arrive at a knowledge of that should be every breeder's ambition. Mr. Welles, in his admirable and instructive letters on this subject, which appeared in the Hereford Journal and other periodicals, has given a detailed account of the defective points existing in Herefords, especially as it regards their fore quarters, to remedy which, Mr. Price's sort of bulls should be called into active requisition. It augurs well, and is a proof of the correctness of my recommendation, that the Hereford prize oxen and heifer, and many of the prize cattle, at the meetings of the Royal English Agricultural Society, were either purely of Mr. Price's sort, or strongly spiced with that blood. I can imagine that an undue attachment to a favorite color, and a love for animals of overgrown dimensions, will operate with some breeders against trying this heretofore successful cross. It is plainly observable that now size is receiving more attention than form, at the sacrifice of many points of utility and beauty. We occasionally see a good animal of overgrown dimensions, but more frequently the reverse—"an uncertain bull at an uncertain hop;" neither do I believe there is any advantage in it, as animals require more food and care when driven beyond their natural standard, and, like water forced above its level, will return to it again when the floodgate is withdrawn. I do not, however, advocate diminutive animals, but those with as much size as is consistent with the laws of nature. If the breeders of Herefords steadily keep in view the improvement of their justly celebrated cattle, the short-horns and Devons will never supersede them, and they will be enabled to maintain their invidious position at the two great national agricultural exhibitions.

GEORGE DRAKE.

STOCKBRIDGE, HANTS, Feb. 27, 1849.

—From the American Agriculturist.

PROSPECTS FOR THE WOOL MARKET.

We once more recur to this subject, for although the flocks in Maine have been wonderfully thinned off, there "are a few more left," and their owners feel as much interest in the question, "How is wool?" as ever.

The new monthly periodical, started by T. C. Peters, in Buffalo, N. Y., entitled the "Wool-Grower," promises to be a valuable aid to the wool-growing interest; and as the editor is at the head of a large wool depot, and of course directly connected with the wool trade, his statements may be relied upon, as one "having authority" in these matters at least.

The range of the Buffalo market, during June, he quotes as follows:—

No. 1,	30 to 34 cents.
2,	27 " 32 "
3,	25 " 28 "
4,	23 " 26 "
5,	20 " 23 "

And he adds, that wool ought not to be sold, and probably will not be, unless forced upon the market, at a price below the highest range; but if forced upon the market, it can be readily sold at our lowest quotations. These prices are for the opening market.

It may not be clearly understood by some of our readers what is meant by Nos. 1, 2, &c.

Mr. Peters says his mode of sorting is this: The very coarsest common wool is No. 5. There is scarcely a flock so common that its wool will not range at No. 4, which is the next best grade.

Full-blooded Merino is the No. 1, while half and three-fourths will make more or less No. 2. One quarter and half make No. 3. Saxony wool and its grades rank above Merino and its grades. The farmer can therefore form a pretty accurate idea of the value of his wool from the foregoing figures.

The editor advises wool-growers to make their arrangements and calculations without any reference to any alterations of the tariff very soon. He thinks the balancing of parties at Washington, for or against a new tariff, such as ought not to lead the farmer to depend upon any important change, and the reasons which induce him to consider a rise in wool probable during the season, are based upon the state of affairs in Europe.

He remarks, that "there are no old stocks on hand to be thrown upon our markets, either from France, Germany, or England. On the contrary, their own markets were never so bare as at this moment.

"The war between Austria and Hungary has been very disastrous to some of the finest wool-growing sections of those countries, and by increasing consumers, and decreasing producers, the result must be that there will be nothing to export. Indeed, should this war continue any length of time, or become more general, it is not improbable that we shall become exporters of wool to such an extent as to sensibly affect the price at home." He also observes, that if England is compelled to purchase her wool here, it is clear that our manufacturers will have little to fear from them, for the difference of transportation, time, and other expenses, with the tariff, will more than neutralize any advantage her manufacturers may have over ours, by reason of the cheapness of labor and capital.

On the other hand, they must also consider that any advantages that may arise from the present commotions in Europe, are very precarious. They may subside ere the year has expired, in which case markets will return to their former condition, or they may continue and settle down into a long and savage war, in which case what brings desolation to them may indirectly increase prices in our own country. It is not probable that wool-growing in the Northern States will ever again be as profitable as it has been in years past; yet it may become a fair business once more. — *Maine Farmer.*

THE DEW.

The dew, celebrated through all times and in every tongue for its sweet influence, presents the most beautiful and also striking illustration of divine agency in the economy of nature, and exhibits one of those wise and bountiful adaptations, by which the whole system of things, animate and inanimate, is fitted and bound together. All bodies on the surface of the earth radiate and throw out some rays of heat, in straight lines — every warmer body to every colder; and the entire surface is itself continually sending rays upwards through the clear air into free space. Thus, on the earth's surface all bodies strive, as it were, after an equal temperature, (an equilibrium of heat,) while the surface, as a whole, tends generally towards a cooler state. But while the sun shines, this cooling will not take place, for the earth then receives in general more heat than it gives off; and if the clear sky be shut out by a canopy of clouds, those will arrest and again throw back a portion of the heat, and prevent it from being so speedily dissipated. At night, then, when the sun is

absent, the earth will cool the most; on clear nights, also, more than when it is cloudy; and when clouds only partially obscure the sky, those parts will become coolest which look towards the clearest portions of the heavens. Now, when the surface cools, the air in contact must cool also; and like the warm currents on the mountain side, must forsake a portion of the watery vapor it has hitherto retained. This water, like the floating mist on the hills, descends in particles almost infinitely minute. These particles collect on every leaflet, and suspend themselves from every blade of grass, in the drops of "pearly dew." And mark here a beautiful adaptation. Different substances are endowed with the property of radiating their heat, and thus becoming cool with different degrees of rapidity; and those substances, which, in the air, become cool first, also attract first and most abundantly the particles of falling dew. Thus, in the cool of a summer's evening, the grass-plot is wet while the gravel-walk is dry; and the thirsty pasture and every green leaf are drinking in the descending moisture, while the naked land and the barren highway are still unconscious of their fall. — *Farmer and Mechanic.*

THE JAPAN CEDAR.

The English periodicals abound with interesting notices of this tree, which, along with the *deodara*, or Indian cedar, is decidedly the rage in that evergreen-loving country.

The Japan cedar, (*cryptomeria Japonica*), which is nearly allied to the cypress, is one of the many treasures brought home by Mr. Fortune, the Chinese traveller, to the London Horticultural Society. As it grows in the north of China, about Shanghai, where the thermometer sinks nearly to zero, and forms large forests on the mountains of Japan, at the height of more than one thousand feet, it follows that it is a hardy evergreen in all temperate climates.

The English accounts of this tree state, that for beauty and rapidity of growth it has no rivals among hardy evergreen trees. In the garden of the London Horticultural Society, young trees have grown four feet in a single season. It is described by some of its admirers as the "Queen of Evergreen Trees." Its peculiar beauty is in the graceful droop of its branches. It is a great favorite in China for avenues, growing up one hundred feet high, with a remarkably straight stem, and dense and handsome foliage. The wood is said to be very hard and elastic, and "withstands the most terrific winds or monsoons, which sometimes devastate that country. It is employed in China for the high poles which are every where placed at the dwellings of mandarins, to denote their rank, where it lasts for ages."

The Japan cedar is said to be as hardy in England as the *deodar* cedar. As the latter tree, even in young specimens, has, in this country, withstood without injury a winter temperature of six degrees below the zero of Fahrenheit, we may safely say that the Japan cedar, or *cryptomeria*, will endure the winters of the Middle States, and possibly those of the Eastern States, in proper situations, i. e., those sheltered from sudden thaws in winter.

The soil considered most favorable to the growth of this tree is a sandy loam, mixed with some peat or leaf mould. Those inclined to plant where there is doubt of its standing the winter, will take care that the subsoil is well drained when preparing to plant it.

The tree is, of course, yet very scarce in this country. Plants about a foot high may, however, be obtained of Buist, Parsons, and other leading nursery-men. Ellwanger and Barry have also, we notice, imported a few for sale and for trial in the interior of this state. Every amateur will be glad to make

trial of a tree that promises to add so much to the beauty of our lawns and pleasure-grounds; and, we hope, in another season the Japan cedar, if found quite hardy, will be imported, so as to be afforded at a moderate price in our nurseries. — *Downing's Horticulturist*.

Domestic Department.

MOTHERS. — O woman! if you could only see one of the miracles promised to maternal influence, with what noble pride would you enter upon that career which has so generously opened future ages to your endeavors! That which is not in the power of any monarch or any nation to accomplish is given to your will to execute. You alone can unite the scattered flock, and give it one common impulse. That which I have not been able to trace on this cold paper, you can engrave on the hearts of a whole people. I offer to you a feeble image of the truth, and you can bequeath the truth itself to the whole world. When, in our public walks and gardens, I see on all sides the noisy crowds of children diverting themselves with the sports suitable to their age, my heart trembles with joy at the thought that they belong to you. Let each devote herself to the happiness of her own children, for in such individual happiness God has placed the promise of general happiness. Young girls, young wives, tender mothers, it lies in you, much more than it lies in the laws of a legislature, to confirm the future destiny of Europe, and the destiny of mankind. — *Aime Martin*.

KEEPING LEMONS FRESH. — I have been a house-keeper for some years, and never, till lately, have I been able to keep lemons fresh and juicy for any length of time. But, with all my care — now in this closet, now in that — now wrapped in paper, now packed in bran — now in a cool place, now in a dry one — they would dry up, and become hard as wood. Of late, however, I have preserved them perfectly fresh, three months, in summer, by placing them in a closely covered jar, or pot, kept in the ice-house. Each lemon is wrapped in a paper, (perhaps they would do as well without,) but opened and wiped once in ten or twelve days, then covered again with dry paper, and put back into the jar, or earthen vessel, on the ice. — *American Agriculturist*.

SOAPSTONE GRIDDLES. — Understanding that cakes on a soapstone griddle required no fat to keep them from sticking, I brought home one a few days ago, and we prepared to try the experiment. The look of incredulity in the chief cook, at that moment, was amusing; but it was soon turned into one of triumph, for the cakes were turned and taken off as easily as they would have been from the best greased "bak-iron;" and without any fume from burning fat, as in common cases. Besides, the cakes were all nicely browned, and not one burned in the slightest degree. It is true, soapstone may be heated red hot, but then the plate is so thick, and heats so slowly, that all danger of burning is easily prevented. In short, we are highly pleased with the purchase, and deem it a great acquisition.

It will be important to keep these griddles very clean, and for this purpose, they may be rubbed occasionally with pumice-stone. — *D. Thomas, in Albany Cultivator*.

TO STRENGTHEN VINEGAR. — Suffer it to be repeatedly frozen, and separate the upper cake of ice from it.

Boys' Department.

FISH BREEDING. — It may be a curiosity only to us who have such an extent of sea-coast, and so many lakes, rivers, and streams full of fish, to make any inquiries in regard to the best modes, or any modes, of breeding fish. The comparative ease with which we are generally supplied with fish of various kinds has made it unnecessary to study all the habits of fish with any view of breeding them economically. It is done in many parts of the world, and the facts which have been elicited by those who have attended to such operations are very interesting.

The Chinese, who are so famous for economical arrangements for procuring food, often adopt a practice like the following: It is stated by some travelers that at certain seasons of the year, they carefully collect the ova, or spawn, as some call it, of certain kinds of fish, as fast as it is deposited, then procure some hen's eggs, and after making a hole in each end, by blowing the inside of it through, the fish ova are introduced into the shell. The ends being closed, the egg is placed in an oven of a certain temperature, until the young fry nearly make their appearance, when the shell is broken, and the contents put into water warmed by the rays of the sun. When the young brood procured by this means, attain a certain size, a portion of it is applied for the purpose of feeding the larger species of fish, and the remainder destined for the table. Such management may do for China, where labor is exceedingly cheap and provisions scarce.

We could hardly afford the time and trouble. We may, however, take the hint and supply places destitute of fish now, or of certain varieties of fish, by obtaining the ova or spawn, and depositing it in those waters where they are wanted.

Fish have been transported from one location to another by catching them alive, and confining them in water, until they are liberated in the water where they are desired to propagate. Some people suppose that fish that come up from the ocean periodically, require a chance to go back periodically. This does not hold good in all cases. In some of the ponds or lakes of Maine are found the common smelt, which were probably first confined there, or prevented from returning to the ocean from which they originally came, by the construction of dams across the streams or outlets. They have continued to live and flourish for a long series of years, and, if any thing, are improved in size thereby. How far this mode might be carried is not known.

There can be no doubt that the salmon might be thus confined in large, deep ponds, by the same means. The habits of this fish are in many respects like the trout, with this exception: the salmon migrates up the streams from the deep waters of the ocean or rivers in the spring of the year, for the purpose of spawning. The trout migrates in the fall. Both, however, retire to deep water in the winter. Those large salmon trout, as they are called, which are caught in the lakes above us, live in deep water, and pretty near the bottom, and it requires a long line to catch them.

Some friends once tried to change the residence of the bass, by confining them in ponds that did not very directly communicate with the sea. What success they met with, we are not informed. If the habits of fishes were better understood, we have no doubt that many more species might be brought to become permanent inhabitants of our lakes and ponds, instead of being mere transient visitors. — *Maine Farmer*.

A good word for a bad one, is worth much and costs little.

Health.

EVIL CONSEQUENCES OF SMOKING.—The widespread habit of smoking has not yet had due medical attention paid to it and its consequences. It is only by two or three years' observation that Dr. Laycock has become fully aware of the great changes induced in the system by the abuse of tobacco, and of the varied and obscure forms of disease to which especially excessive smoking gave origin. He proceeded to state some of them as they were met with in the pharyngeal mucous membrane, the stomach, the lungs, the heart, the brain, and the nervous system. The tobacco consumed by habitual smokers varies from half an ounce to twelve ounces per week; the usual quantity from two to three ounces. Inveterate cigar smokers will consume from four to five dozen per week. The first morbid result is an inflammatory condition of the mucous membrane, of the lips and tongue, then the tonsils and pharynx suffer, the mucous membrane becoming dry and congested. If the thorax be examined well, it will be found slightly swollen, with congested veins meandering over the surface, and here and there a streak of mucus. The action of tobacco smoking on the heart is depressing, and some individuals, who feel it in this organ more than others, complain of an uneasy sensation about the left nipple, a distressed feeling, not amounting to faintness, but allied to it. The action of the heart is observed to be feeble and irregular. An uneasy feeling is also experienced in or beneath the pectoral muscles, and oftener on the right side than the left. On the brain, the use of tobacco appears to diminish the rapidity of cerebral action, and check the flow of ideas through the mind. It differs from opium and henbane, and rather excites to wakefulness, like green tea, than composes to sleep; induces a dreaminess which leaves no impression on the memory, leaving a great susceptibility, indicated by a trembling of the hands and irritability of temper. Such are secondary results of smoking. So are blackness of teeth and gum-boils. There is also a sallow paleness of the complexion, an irresoluteness of disposition, a want of life and energy, and in constant smokers, who do not drink, a tendency to pulmonary phthisis. Dr. Wright, of Birmingham, in a communication to the author, fully corroborates his opinions; and both agree that smoking produces gastric disorders, coughs, and inflammatory affections of the larynx and pharynx, diseases of the heart, and lowness of the spirits, and, in short, is very injurious to the respiratory, alimentary, and nervous systems. — *English Literary Gazette.*

Mechanics' Department, Arts, &c.

A NEW AND IMPORTANT INVENTION.—A few days since, we had the satisfaction of witnessing the operation of a new machine for spinning wool, the invention of Mr. Wm. C. Bates and Mr. S. B. Tucker, of this town, which is a very great and important improvement in this department of woollen manufacture. Mr. Bates is a practical machinist, and Mr. Tucker a wool spinner and manufacturer. And in the construction of this machine they have displayed great ingenuity and remarkable skill.

It is well known to those who are acquainted with this kind of manufacture, that wool cannot, like cotton, be drawn out and then twisted, but that both must be done at the same time, and with the same operation. The present mode of performing this work is by means of "jacks," which take the wool or roving, which has previously been prepared by the

cards, and draw and spin it into thread for warp or filling. The jacks occupy a large space, and require a great amount of labor and care to work them. But this new invention is so constructed that the jacks may be wholly dispensed with, and the thread is drawn out and twisted by the unaided operations of this ingenious machine, which is called the "Bates and Tucker Revolving Draft and Wool-Spinner."

The spinner which we saw, occupies a length of four feet six inches, by a width of three feet, and contains twenty spindles. We were told that it would do the work of fifty spindles on a jack, which would occupy a space of ten feet by seven feet eight inches. In other words, fifty spindles of the jack occupy seventy-eight square feet, while the spinner occupies thirteen and one half square feet—a fraction over one sixth of the same space!

This machine possesses several important advantages over the jack. 1. There is a great saving of room, as seen above. 2. A great saving of labor, performing a much greater amount of work with much less manual assistance. 3. It requires much less power in its operations. 4. By this method there will be no small saving in using the yarn, as bobbins wound by machinery will contain a greater quantity of yarn, and, it being wound more even, can be wove or warped off with less delay.

As we witnessed the operation of both methods, we noticed that the yarn spun by the revolving draft was much more even, both in size and twist, than that spun by the jack; and it makes a soft, elastic, and strong thread. It will spin coarse as well as fine stock. The machine is very simple in its arrangement, and it is so constructed as to give great strength to each part, while but little strength is required to do the work. Its motions are easy and natural,—which must render it a very durable, still, and beautifully operating machine.

Public attention was first called to this great invention by the Maine Farmer, last November; but since that time, important improvements have been made by the inventors, and its powers more fully tested. The proprietors now feel the utmost confidence in its success, and they are taking measures to secure a patent and bring it before the public. We have no doubt that this wool-spinner will go into general use, and be of great utility in woollen manufacture. We hope that the ingenious inventors will meet with that success which their skill and enterprise so richly deserve. — *Gardiner, (Me.) Cold Water Fountain.*

REARING, KEEPING, AND FATTENING DOMESTIC ANIMALS.

The science of breeding, keeping, and fattening domestic animals is too much neglected in the United States. Few practical farmers have the courage to take hold of the somewhat forbidding subjects of comparative anatomy, physiology, and organic chemistry, with a resolute purpose to understand the living organism by which grass, hay, grain, and roots are transformed into beef, mutton, pork, butter, cheese, and wool. The natural machinery for effecting these important changes of vegetable into animal substances, deserves to be studied with great care, in order to make the most of the food consumed by every animal kept on the farm. There is no class that has reached perfection in yielding the largest product in flesh, milk, or wool, for the aliment consumed, in the course of its lifetime. All are fed unequally—sometimes too much and sometimes too little; and, again, they suffer from food more defective in quality than deficient in quantity. One often sees store pigs eat the dung of over-fed fattening hogs; and in this city, half-starved cows voraciously devour the solid excretions of corn-fed carriage horses. In

rearing swine, they are commonly underfed about three fourths of their lives, and overfed the other fourth; so that, in the aggregate, not more than one half as much meat is elaborated from the food taken into the stomach of pigs as might have been formed.

All animals demand a certain quantity of nutritive matter to preserve them in a normal condition, or to prevent their losing weight and becoming poor and poorer. In all cases where the object is to form meat, it is bad economy to keep animals for weeks and months, as thousands of farmers do, without gaining a pound of flesh, although they necessarily consume a large amount of food. This forms the manure; i. e., one hundred pounds of solid matter taken into the stomach yield forty in dry dung yard and urine, and no more. If we feed much above the point of normal nutrition, a portion of the aliment fails to enter the lacteal vessels which surround the alimentary canal, and through which digested matter passes into the blood-vessels to nourish the system. This excess of food, whether partially digested or not, passes on through the bowels, and appears as feces or dung. There is always an immense loss in seeking to make animals excessively fat. Of course, when two or three prices are realized for such beef, mutton, or pork, the loss in the waste of food is paid by the consumer. Our object is to develop the true economy of making meat, regardless of the fact whether it is sold or consumed by the producer. This consists in providing a reliable supply of suitable food, so that the animal, from its birth to the day of its being slaughtered, should steadily gain in weight. So long as it is adding to the length and size of its bones and muscles — growing — its system will be little inclined to take on fat, if not overfed. Excessive stuffing and no exercise, bring the development of bone and muscle to a premature ripeness. They cease to expand, and you have a fat lapdog or a pocket china pig. Habitual starving will also bring the carcass to maturity before it attains to its proper size. Skilful feeding implies that one never gives too much nor too little; and has the food well adapted to the constitution and habits of the animal, whether a horse, sheep, cow, or swine.

This system of feeding is not so easy as some may imagine; for the quantity of grass that will grow on a given number of acres, in pasture and meadow, in a dry or wet season, is very unequal. Hence, in the one case, the farmer will have more feed than stock; and in the other more stock than feed. If one must err in the matter, it is usually better to have an excess, rather than a deficiency of forage. Grass left to rot on the ground in a pasture or meadow is far from being lost. It improves the soil.

After having taken all due pains to make two blades of grass and corn grow where only one of either grew before, the stock-grower should study closely the business of breeding domestic animals. The leading idea in this art and science is, to select the best males and females, from which to propagate and improve the race. This rule applies alike to the equine, bovine, ovine, and swine families. In each genus there are several species, in each species there are numerous breeds, and in the several breeds not a few varieties. It is no part of our duty to attempt to write up one species or breed of animals, whether of cattle, horses, hogs, or sheep, and to write down another. Practical farmers know best what kind of stock will suit their land and markets. Our advice, if offered, would be quite as likely to miss as to hit the wants of the reader. There is more difference in the value of breeds than many are willing to admit, and less than some breeders of improved races claim. A yearling of the short-horn stock, less than thirteen months old, was weighed in this city a few days since, and brought down six hundred and seventy-five pounds. This heifer, which was not fat, is the

offspring of Mr. Clay's importation. Another heifer, of the same family, weighed seven hundred and eighteen pounds when fifteen months old. The mother of the calf first named belongs to the lady with whom the writer boards; and this valuable cow gives some twenty quarts of rich milk a day. There are Devons near here from the herd of L. F. Allen, Esq., which are much admired for their beauty.

The Texas Telegraph, of May 24, published at Houston, says that wool grown in that state, and sent to New York market, has brought one dollar and twenty-five cents a fleece this season. Men are buying large flocks in Mexican states, Missouri, Tennessee, and elsewhere, to drive into the northern parts of Texas. Sheep husbandry is beginning to excite considerable attention at the south and southwest.

Believing, as we do, that this republic is likely to enjoy great prosperity during the next ten years, and receive large accessions to its population and wealth from Europe, the demand for good breeding animals will be steady, and at quite remunerating prices. Whoever will take due pains to improve his cows, sheep, horses, and swine, cannot fail to be well paid for his trouble. — *Genesee Farmer*.

REMARKS BY EDITOR N. E. FARMER. — The able article here presented offers valuable facts and suggestions. In fattening animals, one important consideration is frequently overlooked. Fat meat is often made for the same purpose as Pindar's razors — *to sell*; and too little attention is paid to the health of the animal or the healthful condition of the meat. An animal is often shut up and kept without exercise or pure air, and fed highly, which course would surely kill the animal, if pursued long; and when the animal is more than half way from a healthy condition to an untimely death by high feeding and inaction, it is slaughtered and sold. This subject should receive more attention in connection with the general management of animals.

AGRICULTURAL SOCIETIES.

It is a fact that in all the best agricultural counties in the Eastern States, agricultural societies have for a long time existed, and have been munificently sustained. This has been done because experience has proved that their influences are productive of great good to the agricultural interest. In the first place, they have had the effect of placing the leading interest of the country prominently before the people. This has made those engaged in agriculture feel their importance as a professional class. It has stimulated their industry, and made the individuals composing that class emulous to rival each other in every branch of their business. The finest stock has been procured from abroad, and the general stock of the country has been made to attain a high point of excellence. Farming has been done with more system, more neatness, more economy, and with greater profit. Experiments have been made in the composition and value of manures, and every thing that could be made available to increase the fertility of the soil has been employed for that purpose. Waste lands and brush pastures have been ploughed up, and the earth worked to a great depth, and a new source of wealth has been found in lands which before had been scarcely worth fencing. The black muck, or mud, in sloughs, ponds, bottoms of brooks, the accumulation of ages, has been carted out, thrown in compost heaps, made to ferment, and manufactured into valuable manure,

and, when generously distributed on worn-out, or exhausted soils, has made a liberal return for the labor thus bestowed. Farmers have learned that small farms well cultivated are more profitable than large farms half cultivated; that it was more profitable to raise eighty bushels of corn on one acre, than upon two acres; that it paid far better to grow four tons of timothy upon one acre than upon four acres. These results begat a disposition to farm upon a system; to make neat and beautiful farms, and to beautify the country with good farm-houses, out-buildings, fences, gates, and other improvements, which make the business of farming pleasant, desirable and profitable. It is this state of things that has induced men of capital, taste, and education to become identified with the agricultural class.

The same fact may be generally stated in regard to some other distinct branches connected with agriculture. Horticulture, as a branch of agriculture, is now receiving great attention in many portions of the Eastern States. The advances which this science has made (it may properly be called a science) within the last few years, has even astonished its most ardent friends. Valuable varieties of fruits have been produced, which were unknown in former years. Apples, pears, peaches, plums, strawberries, grapes, currants, gooseberries, &c. have been greatly improved. It is now esteemed essential to the health and comfort of farmers, that they should cultivate the most valuable fruits. Common fruits may be regarded as an advance from the savage or natural state of such fruits, while the excellent varieties are an evidence of the most refined civilization. It is even now stated by intelligent pomologists that they have only arrived at the starting-point of horticultural improvements. If so, to what perfection fruits must attain before they reach the goal of improvement!

If objects like these can be promoted by agricultural societies, there cannot be too many of them. In this great agricultural state, they should be extensively patronized. In our own county, the agricultural interest should not suffer the society to languish. The chief interest of our citizens is agriculture. It is here the basis of all other interests. We wish to see it prosper. We would especially be glad to see agriculture here carried on as a system, farms cultivated with taste, — residences neat, but not expensive, — roads fine — bridges safe — and an air of real prosperity be presented every where. Our farmers have seen fortunate times within the last few years. We mean those who have had crops and stock to sell. There are some, as it is stated in the old proverb, who "never have a dish when it rains porridge;" — some that complain of the times when they take no pains to make them better. We anticipate that hereafter farming will yield a sure, if not a great profit in our state. — *Illinois Journal*.

REMARKS BY EDITOR N. E. FARMER. — We recommend the foregoing article to the particular attention of those who would do away with agricultural societies. Look at the important and numerous subjects that are essentially promoted by these associations, and then judge whether they should be dispensed with. First let the advocates for their abolition recommend a substitute.

SYRIAN CATTLE.

The two male and female Khaisi calves which Lieutenant Lynch purchased at Damaseus, and brought home with him in the storeship Supply, on his return from the Dead Sea expedition, were shown to the president in Washington a few days ago. They are now, one eighteen, the other sixteen months

old, and belonging to Colonel James Castleman, a great breeder, of Clarke county, Va. The bull is four feet ten inches high, ten feet four inches in length, and weighs nine hundred and fifty pounds; the heifer of a proportionate size, and weighs six hundred and fifty pounds. Their limbs are as delicate as those of a gazelle, yet strong and well set as those of a race-horse. They are of a deep shining bay color, and their horns, which are just sprouting, are black as those of a buffalo. When full grown, they are said to stand seven feet high, and the cow is said to yield forty-three quarts of milk a day. Lieutenant Lynch is to have the first full-blooded bull calf, and subsequent produce of the animals is to be appropriated to the extension of the breed at the colonel's discretion. He says he would not take ten thousand dollars for the two. They were presented by Lieutenant Lynch to the state of Virginia, and Governor Floyd gave them to the present owner, as the best means of propagation. We don't know why every one of Virginia's sisters is not entitled to a heifer of this foreign breed. The Boston Post thinks the farmer of Ashland and the farmer of Marshfield should put in the claims of their respective states for a Khaisi calf. — *Mass. Spy*.

THE WEALTH OF THE WEST.

The value of maize or Indian corn as a crop is incalculable, or rather is of such magnitude, that no adequate idea can be conveyed of its importance by figures. I shall endeavor to furnish some notion of its value by a few simple facts.

In Illinois, which is extensively a corn raising state, "the kind mostly cultivated is the gourd seed, with long kernel and small cob, giving a bushel of shelled corn to a bushel and a half of ears. It grows frequently fourteen feet and higher, and in good seasons, large fields often produce seventy-five bushels and over to the acre.

"Allowing a fair estimate for fencing, interest, &c., and prairie farmers calculate their corn costs them, when ripe, standing in the fields, five to six cents per bushel. The labor of one hand is considered adequate to the culture of forty acres; but allow that he is a little lazy, which is a prevalent complaint, and works only thirty acres; then, if he raises one thousand five hundred bushels, it costs only four cents.

"The ears droop, so that the husk is a perfect protection, and it is harvested in the autumn or winter at the farmer's convenience — or when the time comes to fatten hogs, he fences off a few acres, and lets them harvest for themselves, and then gives them a few acres more."

At the rate here referred to, fattened hogs cost the farmer *sixty-seven* cents, and beef cattle fifty cents per hundred pounds, both of the best quality. What its profits actually are, may be inferred from the fact that he ordinarily gets three times those rates for these articles which he considers equal to twelve and a half cents per bushel for corn. When railroads shall take his pork and beef to market, they will be worth three dollars, at the lowest figure. What a mine of wealth is here!

A correspondent of the Richmond Enquirer, writing from Chicago, says

"In the summer of 1845 I was on one of the largest farms of the west. It belongs to Jacob Strawn, of Morgan county, in this state, and contains over eight thousand acres, all fenced and improved. His profits, the year before, had been over twenty thousand dollars, made chiefly on fat cattle and pork; yet he says that all the profits he asks for, in his farming operations, is to make the corn, which he raises himself, bring him twelve and a half cents per bushel on his farm; that is, he is willing to be at all the trouble

of raising and fattening droves of cattle and hogs without profit on them, in consideration of the money he makes by marketing his corn in that way, and getting for it but twelve and a half cents a bushel."

It would seem superfluous to add any thing more on this subject. But in fact, all that has been thus far stated, is but its threshold. I will just suggest two views, which, if correct, — and I do not see how they can be disputed, — will serve to show that the great west must become the richest country on the face of the earth.

It is abundantly demonstrable that a railroad to the Pacific will forever put Indian corn at a minimum of thirty cents per bushel in any part of Illinois. Indeed, I am not sure that a railroad to the Atlantic cities will not accomplish the same result. Another fact: It will be seen in another article of this day's Advertiser, that in the comparatively cold and sterile region of Northern Pennsylvania, close farming has produced a yield of one hundred and twenty bushels of corn to the acre, by an individual who believes he will be eventually able to raise one hundred and sixty bushels per acre. What has been done in Pennsylvania, can readily be done in Illinois, when high prices shall stimulate the effort. — *Cist's Cin. Adv.*

NOTICES OF PUBLICATIONS.

ACTS AND RESOLVES, passed by the legislature of Massachusetts, in 1849. — These occupy 266 large octavo pages, showing that if our legislators did hold a long session, of which many complained, they were very industrious; and many, who were the most active on committees, must have had a very laborious task.

THE AMERICAN FARMER. — This able and instructive journal, by S. Sands, Baltimore, has just commenced a new volume. Monthly, 32 pages, at \$1 a year. This is a descendant of the old American Farmer, by Skinner, the first agricultural paper ever published in this country; and the whole series, from the beginning down to the present period, is well filled with interesting and valuable matter.

PROFESSIONAL WOMEN.

An effort is now making to establish, in Boston, an institution for the education of females as obstetric practitioners — a most important object. This department of practice ought never to have passed out of the hands of women, and would not had they been provided with instruction and opportunities for acquiring practical knowledge, as is the case in European countries. This enterprise is conducted by the "American Medical Education Society," under the patronage of which a number of intelligent females have already been educated. Persons wishing further information, or to render the society pecuniary aid, can call on, or correspond with, the secretary, Samuel Gregory, 25 Cornhill.

SALE OF CATTLE AND SHEEP.

We would call particular attention to the sale of fine Hereford cattle and Merino sheep, as advertised on our cover, of Messrs. Bingham.

A NATIONAL CONVENTION OF THE FRIENDS OF

EDUCATION will be held at Philadelphia on the 22d day of August. This call is made by a large number of gentlemen distinguished for their talents and zeal in this cause, and we trust that there will be a hearty response from every part of the Union.

PRESENT FOR THE FOURTH. — Mr. John Bridge, of Chelsea, and Mr. Geo. Thayer, of Randolph, presented us with boxes of fine strawberries for the fourth of July, which we neglected to acknowledge in our last number.

AGRICULTURAL HYMN.

Great God of Eden! 'twas thy hand
First clad earth in bloom,
And shed upon the smiling land
Nature's first rich perfume:
Fresh at thy glance the flowers sprang,
Kissed by the sun's first rays —
While plain, and hill, and valley rang
With life, and joy, and praise.

God of the Clouds! thy hands can ope
The fountains of the sky,
And on the expectant thirsty crop
Pour down the rich supply:
The farmer, when the seed-time's o'er,
Joys in the mercies given —
Thinks on thy promised harvest store,
And, smiling, looks to Heaven.

God of the Sheaf! to thee alone
Are due our thanks and praise,
When Harvest's grateful labor's done,
On Plenty glad we gaze:
Then shall our thoughts on Heaven rest;
Thy grace we will adore,
And thank that God, whose mercies blest
Our basket and our store.

THE OLIO.

A HINT TO BACHELORS. — A lady named Mary Ann Aldridge, had occasion to send a note to a gentleman, and put two r's into her first name in the signature, thus: "Marry Ann Aldridge." The man was a bachelor, and consequently took the hint: he married Ann Aldridge.

Science must be combined with practice to make a good farmer.

If you would be happy when old, be temperate while young.

When Prosperity was well mounted, she let go the bridle, and soon came tumbling out of the saddle.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18 $\frac{3}{4}$ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1 $\frac{1}{2}$ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, AUGUST 4, 1849.

NO. 17.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

PEARMAINS — PIPPINS.

PEARMAINS. — According to an article in the English Gardener's Chronicle, the original signification of *pearmain*, when applied to an apple, was pear-shaped. This meaning seems to have been lost. In our boyhood, we found that this name was given to apples that had a pear flavor, and we believe this has generally been considered the meaning of the word in this country. But of late years, this term has been applied to many apples that do not resemble pears either in form or flavor.

PIPPIN originally signified a kernel of the seed of apples, pears, and quinces; but early authors applied it to seedling or natural trees, in contradistinction to grafted or budded trees, as appears from the following from Maseal: "As often as pepin-trees be removed to a better ground, the fruite thereof be so much amended; but the fruite which doth come of grafting doth always kepe the forme and nature of the tree whereof he is taken."

According to the manner of using the word *pip-pin*, by many in the present day, it means nothing more nor less than apple, though some, in applying it to natural or seedling trees, continue its use for the same purpose as the early authors on pomology, and it would be well if this ancient signification could be continued, to prevent the too frequent use of the word *seedling*, which is filling our fruit catalogues from the multiplicity of new fruits designated by the originator's name attached to this term. Its application to a seedling tree is in accordance with its original meaning, — a seed.

NEW YORK STATE FAIR.

This grand exhibition will be held at Syracuse, September 11, 12, and 13. The premiums offered are liberal, and the list very extensive, filling nearly five columns of the Albany Evening Journal, amounting, as some have estimated, to six or seven thousand dollars. As the affairs of the New York State Agricultural Society have been conducted on so liberal a plan, and competition invited from different parts of the Union and from the Canadas, this society

assumes the character of a national association, and the fair seems like a great national jubilee.

An address is expected by Professor Johnston, of England, who is distinguished for his works and lectures on agriculture and science. President Taylor has accepted an invitation to be present at the coming fair, and it will doubtless be the greatest exhibition, both in the show and the concourse of people, that has ever occurred in this country.

The railroad companies in the state of New York offer unusual facilities to persons attending the state fair, and for the transportation of animals and other articles for exhibition. When shall we witness so liberal a course in New England?

MARL.

Marls are composed of carbonate of lime, with various kinds of earth or loam. They are known by their effervescence on the application of acids, which drives off the carbonic acid gas. In New Jersey marls abound, and they have been used with astonishing success in renovating the worn-out sandy lands. In New England, but very little attention has been paid to this subject, though marl beds are found in many parts, and thousands of farmers have this valuable fertilizer upon their own premises, who are not aware that they possess so valuable a treasure.

Marl is useful on all soils, excepting such as already abound in lime. We hope that farmers will examine into the resources which they have on their own farms, as they will often find at hand the means of their renovation and improvement. We copy the following article from a prize essay on "Renovating Worn-Out Lands," by Edward Stabler, of Sandy Spring, Md., for the American Farmer: —

MARL. — I can say but little from experience in the use of calcareous manures; but am fully satisfied, both by information derived from others and from personal observation, that wherever it abounds, it might be made a mine of wealth to the proprietor, and the adjacent districts which admit of water transportation.

The only apparent reason why they are not more so, is either ignorance of its great fertilizing properties, or a lack of the necessary enterprise and indus-

try to become rich, when every facility for the purpose is, as it were, laid at their very doors. The quantity of marl required to the acre, to produce much beneficial result, does not admit of extended land transportation; but there are thousands, if not tens of thousands, of acres bordering on and near tide water, both in this and neighboring states, now thrown out as waste lands, because they will no longer yield even a stinted growth of vegetation; most, if not all, of which might readily be reclaimed by the judicious use of marl, and at one fourth the cost per acre that lands in the interior — originally no better, if so good — are made to yield ten to twelve barrels of corn, or thirty to forty bushels of wheat, to the acre. I have been informed by some of the large landed proprietors — not owning nor residing within less than eight to ten miles of the marl beds — that a boat load of a thousand to twelve hundred bushels of marl, rich in carbonate of lime, could be delivered at many of their landings, at an expense not exceeding eight to ten dollars. Yet not one bushel was ever used!

But, as was justly remarked by one of these very intelligent and hospitable gentlemen, "It's no use to preach to a deaf congregation;" and a further remark or two will only be added, not altogether without the hope that something will eventually "stir them up," and induce a trial, at least, of this valuable manure. It matters less how, when, or what quantity of marl or lime is applied; only make the application, and that pretty liberally. Its application, like lime, is best made one, two, or three years, and on the surface, before breaking up the land, and thus give it the benefit of the winter's frosts and snows to dissolve and incorporate it with the soil.

STRAWBERRIES.

MR. EDITOR: Please inform me of the best strawberry, to be sure of a good crop, and the best time to set them out? A SUBSCRIBER.

ANSWER. — The best strawberry, for New England, if the cultivator has but one kind, is the Early Virginia, called in the Middle States *Large Early*. It is hardy, a vigorous grower, very productive, and excellent fruit. This has been long and extensively tried. There are some new kinds of high pretensions, but they have not yet been fully tested. We can give examples, from good authorities, of the largest crop from this strawberry that was ever known.

In cultivating two kinds, we should add Hovey's Seedling; and from its large size, which makes it more salable, and more convenient to pick, some cultivators give this a preference over the Early Virginia. But as it is a pistillate plant, it will not yield much alone, and the Early Virginia is a good kind to plant near it, for the purpose of fertilizing it with its pollen or dust, and producing an earlier crop, it being about a week earlier than Hovey's. These two kinds form a succession of crops, and are the most valuable that have been fully tested in this part of the country.

In setting the two kinds, set every fifth or sixth plant of the Early Virginia, and let the Early Virginia in one row come between the same kind in adjacent rows. Thus, h for Hovey, v for Virginia.

v h h h h h v h h h h h v h h h h h v
 h h h v h h h h h v h h h h h v h h h
 v h h h h h v h h h h h v h h h h h v

Or set single or double rows four feet apart, and set every second row of each kind; or, if you would have more of Hovey's, set two rows of them and one of Early Virginia.

The best time to set strawberries is in the spring, and then they should be set in rows four feet apart, and vigorous kinds, like Early Virginia, should be set about a foot apart, and those of moderate growth, like Hovey's, about eight or ten inches apart, in the row.

Strawberry plants are often set in August, or the last of July, frequently on land that has been cleared of early crops, and in a wet season they succeed well; but if it is dry and hot, they often fail; or if the plants set do not fail, they fail to send out runners, and there is no crop excepting from the plants set out. Therefore the surest way, in setting the latter part of summer, is to set double rows for every four feet, having the two rows about fifteen inches apart, and set the plants nearly twice as thick as in spring planting; then, if there be no new plants made, owing to drought, or other cause, the old plants may be sufficiently numerous for a good crop.

The plants set late in July, or in August, generally yield a good crop the next season; but it is very uncertain about getting a good product from new plants that are made from them, or rather uncertain about their sending out new plants, especially on dry ground. Moist land is much better adapted to late setting. The surest way is to set in spring, and then, from a few plants set, the ground is generally well covered with vines, and a good crop produced the next season.

HEREFORD CATTLE.

In our last number, p. 250, is an interesting article on this race. We learn from the advertisement of Messrs. Bingham, in our advertising department, that they have this stock for sale, and are making experiments with it in New England. We are pleased that a race of animals, so famous in the old country, is now subjected to a fair trial, by the enterprising and intelligent in our own section of the Union.

In the numerous attempts to improve the breeds of cattle, the noble Herefords have been too much neglected. Some think that they are too large, and require too high keeping for our short pastures; but we would inquire where larger oxen can be found than many that are used in the lumber business in Maine. And these noble animals have been raised there, and they are preferred in most cases to lighter cattle.

If large native cattle may be raised and used to advantage in our northern region, then why may not superior foreign breeds, of a large size, do well? And may they not be used to good advantage in crossing with our common cattle, for which purpose the Messrs. Bingham say the Herefords are well adapted?

We do not recommend to the farmer, in common circumstances, to run into numerous experiments; but let the enterprising, who are well able, lead off

in this business, and let others contribute their mite towards making a fair trial of all and any animals that promise a liberal compensation for expenditures. We trust that the Herefords will be scattered over different sections of New England, and fairly tested.

WITCH OR COUCH GRASS.

This grass, in tillage, is among the most troublesome of all plants or weeds. The most effectual way to destroy it, where it is extensive, is to let the land lie fallow, and plough and harrow it often, especially in dry weather. The plough will check its growth, when used often, and bring the roots to the surface, and the harrow will draw them out, and they will die when exposed to a hot sun, in a dry time. When this grass first makes its appearance in tillage, it should be thoroughly cradicated. We copy the following remarks from the Germantown Telegraph:—

Witch grass commonly abounds in all lands which have been long under the plough, and rendered fine and pulverulent by a rapid succession of weeded crops, and liberal applications of fructifying manures. Many methods have been advised and recommended for its extirpation, but none as yet which can be relied on as wholly efficient. Where a small spot is to be cleansed, resting during one season, carefully covering the surface with boards, will generally destroy most of the grass. A writer in the *Maine Farmer*, some years since, stated that he had succeeded in eradicating it by ploughing it under "a foot deep," afterward harrowing it carefully and "cultivating the ground as usual; it never troubled him afterward." Others have tried this "plan," but have failed to realize the result anticipated; the grass, even when embedded in the soil to the depth of a foot, still retained its vitality, and came up to the surface late in the season in "different parts of the field, as rank and vigorous as before." Some have recommended sowing this grass, as it makes a rich and nutritive food for stock; but no one, who understands its habits, will concur in urging this plan, as it is not only a great exhauster, but after the first or second year produces but a small crop, unless heavily top-dressed. B.

BENSALEM, *June 20, 1849.*

THE MOUNT VERNON FARMER.

Washington was ardently attached to agriculture, and its improvement was ever with him an object of permanent regard. Virginia can boast of few sons to whose efforts her agriculture has been more signally indebted; few who have assisted in promoting its interests to a greater extent, or with the manifestation of more ardent and patronizing zeal.

The following account of his farming operations will serve to exhibit the "*Father of his Country*"—the man "first in war, first in peace, and first in the hearts of his countrymen"—in his true light. The farm of General Washington, at Mount Vernon, consisted of ten thousand acres of land, in one body—equal to about fifteen square miles. It was divided into farms of convenient size, at the distance of two, three, four, and five miles from the mansion house. These farms he visited every day, in pleasant weather, and was constantly engaged in making experiments, with a view to the improvement of agriculture. Some idea of the extent of his farming operations may be formed from the following facts: In 1787, he had five hundred acres in grass, sowed six hun-

dred bushels of oats, seven hundred acres with wheat, and prepared as much more for corn, barley, potatoes, peas, beans, &c., and had sowed one hundred and fifty with turnips. His stock consisted of one hundred and forty horses, one hundred and twelve cows, two hundred and thirty-five working oxen, heifers, and steers, and five hundred sheep.

He constantly employed two hundred and fifty hands, and kept twenty-four ploughs going during the whole year, when the state of the weather and soil would permit. In 1786, he slaughtered one hundred and fifty hogs, weighing eighteen thousand five hundred and sixty pounds, for the use of his family, beside provisions for his negroes.

LOWER-MERION.

June 30, 1849.

—*Germantown Telegraph.*

For the New England Farmer.

TAKE CARE OF YOUR HORSES.

MR. EDITOR: Horses should never be allowed to stand in the stable with their harness on, especially when they have been heated by hard driving, and consequently are in a high state of perspiration. A horse should be divested of his harness as soon as he is led to his stall for his feed. A man can judge from his own feelings how much more comfortable a horse must feel when entirely unburdened. Who has not experienced the contrast on his own person, after having walked a mile or two in a warm day, with a coat on, when divesting himself of it, and vest even? How much more comfortable a person will feel when thus unencumbered, than he will if he suffers himself to sit down with the same quantity of clothes on he had been travelling in! So with the horse; he will feed more readily, and will be less liable to be fretted by the harness.

A horse that has been galled or chafed by any part of the harness, (which is quite often the case in warm weather,) should have the harness removed as soon as possible, to prevent irritation. The horse is an animal that should be carefully watched by his master or keeper, to see that he is always in a proper condition to work. How often have I seen the noble horse hauling heavy loads, when his shoulders and sides were badly lacerated by the galling of the harness! And not unfrequently have I seen the lash applied to the willing animal, because he refused to draw—all in consequence of sores on the shoulders or other parts of the body.

None but an unmerciful man would beat his horse, when in this condition. When horses have become fretted by the harness, timely aid and the proper remedies should be applied. A horse should be used as little as possible when he has a galled shoulder. But if he must of necessity be used, bandages should be fitted around the collar, both above and below the wound, that the collar may not irritate it. A few days (if the proper remedies are used) need only elapse before a cure may be effected. There are different remedies that will prove effectual, providing the galled parts can be kept from being chafed, from day to day. I have had good success by washing the parts affected in nothing but cold water. Different individuals, however, have different remedies. "A merciful man will be merciful to his beast;" and he who cannot be merciful to his beast, ought not to be the owner of one.

A. TODD.

SMITHFIELD, R. I., *July, 1849.*

Forests of standing trees in Yorkshire, England, and in Ireland, have been discovered embedded in stone.

For the New England Farmer.

INSECTS AND TOADS.

MR. EDITOR: We suppose it to be a fact, well established by the experience of the horticulturists of England, that the higher and more extended the state of cultivation, the greater will be the number of insects and weeds, with which we shall have to contend. And it will probably be found, as we continue to increase, in number and variety, our trees, shrubs, and plants, brought, as they are, from distant parts of the globe, that we have also introduced with them new weeds and new insects.

And, if we add to those brought from abroad our own native species, which leave our fields and woods, to follow the trees, shrubs, and plants, brought from thence, and transplanted in our extensive gardens, it must at once be seen, that the cultivator has an increasing host of weeds and insects, disputing with him, day by day, his right to the productions of the soil, and even the right of occupancy of the soil itself. The necessity of this constant warfare upon weeds and insects compels us to look around for aid and assistance. And where shall we find it? I think we may find some aid by the protecting of our birds, particularly our insectivorous ones, and by never permitting a lubberly boy to enter our grounds, to shoot them or disturb their nests. In regard to the keeping of hens in a garden, to destroy insects, we would not recommend it, as we have, after many trials, with the single exception of the Bantam breed, found them to be very troublesome. I think much aid may be found by giving protection to, and increasing the number of, such reptiles as are known to be harmless, and feed upon insects. And, in this connection, permit me to mention, and introduce to your notice, regard, and kind care, such innocent creatures as green snakes, striped snakes, and our common toad, which spend their best days and nights in ridding our fields and gardens of our greatest pests, and harming no one. But, O! the cruel prejudice against them, by those ignorant persons who suppose that all snakes have fangs to bite them, and because the toad, in their opinion, is ugly in its appearance, it must consequently be venomous; forgetting that its eyes are proverbially beautiful, having a brilliant, reddish, gold-colored iris surrounding the dark pupil. Hence Shakspeare, in *Romeo and Juliet*, remarks,—

“Some say the lark and loathed toad change eyes.”

We know of a skilful cultivator of the soil, in the old county of Essex, who thinks it worth his while, in view of the large number of insects destroyed by toads, to pay boys half a cent apiece, for all they will put into his garden. It is astonishing what a number of insects toads in a garden will destroy, and how excessively fat and corpulent they will become from this excess of food. Their love of those great pests, rose-bugs, is very great.

We have of late been in the habit of shaking our plum-trees, to dislodge these insects, just at night, for the benefit of the toads, as well as of the trees, when they would at once gather around to seek their favorite food. We have generally found them, early in the morning, under the trees infested with rose-bugs, watching and waiting for the fall of their prey, when, by giving the trees a good shake, they were plentifully supplied. When thus shaken from the trees early in the morning, or late in the afternoon, they never take wing, but remain upon the ground, to be devoured by these reptiles. Now, Mr. Editor, you and I have lived long enough in this world to know that the value of any thing depends very much upon its permanency, not even excepting the services rendered by toads. And now, having learned their value to us as cultivators of the soil, how can we best secure them for our permanent benefit?

Owing to habits and instincts peculiar to the race, the same toad, that is so useful to me this summer in my garden, may, another season, be located afar off in a wet meadow, or low marsh, where his services are not so much needed. So the question resolves itself into this—When we get a toad that is steady and useful in our garden, how can we keep him there? To answer this question, I suppose we must first learn his habits and mode of life. These reptiles, in common with many others, upon the approach of cold weather in autumn, usually seek winter quarters in the muddy bottoms of ponds, unless they can find, to their liking, protection from the cold and frost of winter, near at hand. This they frequently do by crawling into and burrowing in some old hotbed, or loose, dry soil under the roots of trees. We have noticed, that they are fond of hibernating in old rotten hemlock tan, sometimes used in gardens to form walks. Late in the autumn of 1847, in removing a tree, whose roots ran into one of these tan walks, we disturbed, in a partially torpid state, large numbers of toads, which were counted by my man and carefully put back again, and found to number seventy-nine. They appeared to extend through the entire walk of several rods in length. This circumstance has led me to believe, that we might not only fill our gardens with this—may I not say useful? (certainly so to the gardener)—reptile, but retain him for years. Toads, in the summer season, should be afforded protection in our gardens, by placing boards for them on the ground, raised an inch from the surface, under which to hide, and screen themselves from the sun.

S. J. FOWLER.

DANVERS, NEW MILLS, July 14, 1849.

EDITORIAL REMARKS.—The value of toads has not generally been duly considered by cultivators. They feed on insects, are very voracious, and remarkably adroit in catching their prey. They eat no fruit, and destroy no vegetables. Being thus harmless, and admirably adapted to the destruction of insects, they should be classed among the most useful of animals.

The great increase of insects, particularly on old lands, and the immense destruction of crops by their depredations, require every possible exertion by the farmer to lessen their number; and more attention must be given to this subject, or some tender plants and fruits must be abandoned as unprofitable.

For the New England Farmer.

INSECTS ON POTATOES.

MR. EDITOR: I venture a brief contribution to your pages, which may add some information, perhaps, as to facts which I have observed in the growth of potatoes, and which probably have not attracted much attention. The healthful growth of the stalks and leaves of this vegetable must be necessary to the healthful setting and growth of its tubers, according to a common law of vegetation. Consequently whatever impedes the growth of the former, renders them diseased, or prevents their arriving at maturity, must be injurious to the latter. If large, spreading, vigorous tops form full blows, followed by the growth of potato balls, and the stalks and leaves continue their growth unimpeded sufficiently long to attain full expansion and maturity, then sound, healthy, full-grown tubers will be the result.

I have therefore diligently watched for every symptom of decay and disease in the potato vine. This plant is the favorite food of various insects. First comes the small black flea, in multitudes, and

commences perforating the leaves with innumerable holes as soon as they appear. The vivacious power of the plant surmounts the attacks of these petty marauders, and holds on its way, in spite of the insect's habitual and continued depredations. Young cabbage plants, however, have not strength to withstand them, but to a great extent die. As the time approaches for potatoes to put forth blossoms, then the yellow striped bug, leaving, in part, the cucumber, melon, and squash, commences depositing clusters of yellow eggs in various places upon the potato leaves.

These hatch out in successive groups, and the insects attach themselves to the under side of the leaf, and devour in succession leaf after leaf, or sometimes appear dispersed singly. They are great devourers, and when the grubs have grown to maturity, they seek some other resort, probably the earth. Such were their ravages last year, that I passed among my Mercers, in my garden, frequently to destroy them with thumb and finger, having found them unhurt by dipping them into brine, tobacco juice, and lye.

Another insect, a peculiar fly, stings the leaves at the apex of the stalk, and they at once wilt and die; and generally, where I witness this, the stalk stops growing, and early decay ensues. Nothing but a sufficient number and activity of these flies can be necessary for the sure destruction of whole fields. The borer often perforates a stalk, and eating up and down its centre destroys it. The same worm, in like manner, infests corn, both when young and when considerably advanced. I have found currant branches likewise killed by this insect, by his eating into the top and proceeding down the centre of the branch, manufacturing it into a tube.

Present observation of the garden plot I cultivate convinces me of two things: first, that the fore-named bug and its larvæ, and the poisonous fly, are now doing much and irreparable injury to my potato plants by producing the decay and death of leaves; and secondly, that the stalks are likewise rendered sickly, and preparing to shed their leaves, or to retain them in a dry, black, crisped state — the sure precursor of immature diseased tubers. The evidence is satisfactory to myself, that so far as my own ground is concerned, there are causes at work, viz., these pestiferous insects — whose blighting power is quite adequate to produce the potato rot. My reasons are, that the blossoming of the plants and their natural growth are prevented, and that the tubers must be correspondently affected. They cannot live, grow, and come to maturity, because the vines are prevented from doing so.

At the same time, the juice imbibed from the earth, by the tubers, is prevented by the disease of the vines from being assimilated, and from having its superfluous part conveyed off. Consequently it is retained in the tubers, there to turn into a putrescent state, and thus at length completely to destroy them.

What would become of the fruit upon a tree, if insects should consume or infest, at a critical period of growth, the leaves and tender shoots around it? What would be the fate of an ear of maize, if, just when its silk is expanding, the leaves and stalk above it should be smitten with sudden, sure, and rapid decay, and a lingering death? And if, precisely at that crisis when the potato plant is preparing to blossom under the hot sun of June or July, the attacks of such insects are discovered, as consume and stunt the tenderest part of the plant, causing the sure, successive decay and death of the remainder, how is the conclusion to be resisted, that just to the extent to which these causes operate, there must ensue, by the righteous but mysterious visitations of Providence, the blight and destruction of the

potato crop? How utterly impotent, too, is man to avert the calamity!

J. LEE.

SALISBURY, Ct., July 11, 1849.

For the *New England Farmer*.

THE COMPOST HEAP.

MR. COLE: We have noticed, in all our excursions during the summer, that farmers are taking unusual care to increase their manure heaps. The general course that has been pursued, was, immediately after planting, to cast the surplus manure from the yard, and such quantities of muck from the swamp as convenience permitted, and blend them in a common heap. This is undoubtedly a wise course, and will go to increase the productiveness of the land in a remunerative ratio. A question, however, will arise, whether an actual loss will not be realized by the farmer beyond what he might necessarily sustain by preparing the compost in the yard where the action of rains would tend to more thorough and uniform blending, and the trampling of animals be productive of good effect. At any rate, we should suppose that when manure is hauled to the field in May and June, when the warm season is just commencing, and when, of course, decomposition is going rapidly forward, and the gases in rapid action, a benefit would be found in putting a thick covering of muck over the heap, in order to arrest the volatile parts in their hurry to escape, and convert them into available stock. Let those who practise carting out manure thus early try a small heap in the last-mentioned way by the side of one formed in the usual method of letting things remain as they happen to fall, and notice the result in such case, and the truth as to which system is best, and the one which operates most favorably is the one to pursue.

But, after all, we would advise no farmer to neglect making use of his farm-yard for composting. Scrape it as clean as you can, and every rain will bring up muck, which, if properly saved, will go to increase the fertility of some patch which is beginning to show the features of a desert. Muck and turf are good retainers of water, and all perishable substances may be thrown in to increase the quantity. By gathering up fragments in this way, and blending them in a common mass, almost every farmer may collect enough, from June to October, to thoroughly dress an acre of land, and thereby increase its product fourfold, which is certainly better than to add two or three acres of land of ordinary quality to his premises, at the cost of cash which may be otherwise invested; and the increase of taxes, cost of keeping up fences, and all the *et ceteras* attendant on the increase of premises.

Yours truly,

W. B.

July, 1849.

SIGNS OF THE VIGOR, MATURITY, AND DECAY IN TREES.

Signs announcing the Vigor of a Tree. — The branches, especially towards the top, are vigorous; the annual shoots strong and long; the leaves green, vigorous, and thick, principally at the summit, and falling late in autumn; the bark is clear, fine, united, and nearly of the same color from the foot to the large branches. If at the bottom of the veins, or divisions of the thick bark, there appear smaller divisions, which follow from below upwards, in the direction of the fibres, and live bark be observed at the bottom of these divisions, it is an indication that the tree is very vigorous, and rapidly increasing in size. If some of

the lower branches, stifled by others, are yellow, languishing, and even dead, this is an accidental effect, and is no proof of the languor of the tree. Finally, it is a sign of vigor when branches are seen at the summit of the tree, rising above the others, and being much longer; but it is to be observed, that all trees with round heads do not throw out branches with equal force.

Signs which indicate that the Tree is mature. — Generally the head of the tree is rounded; the shoots diminish in length each year, and the farthest shoots add to the length of the branches only by the length of the bud; and the leaves are put forth only in the spring, and become yellow in the autumn before those of vigorous trees, and at this time the lower leaves are greener than the upper. The branches incline towards the horizon, and form angles sometimes of sixty or seventy degrees. These apparent signs, and the thinness of the layer deposited by the sap, indicate that the tree makes but small additions to itself, and now it should be cut down. The nature of the soil should be examined, as well as the kind of tree, to enable a judgment whether the tree should be left to increase still further, or whether it will be more proper to fell it. An exact age cannot be assigned for each species; but it has been observed that an elm, situated in an insulated plantation, may be felled with advantage, when between seventy and eighty years of age.

Signs of Decay in a Tree. — When a tree becomes crowned, (that is, when the upper branches die,) it infallibly indicates, especially for isolated trees, that the central wood is undergoing alteration, and the tree passing to decay. When the bark separates from the wood, or when it is divided by separations which pass across it, the tree is in a considerable state of degradation. When the bark is loaded with moss, lichens, or fungi, or is marked with black or red spots, these signs of alteration in the bark justify the suspicions of alteration in the wood within. When sap is seen to flow from clefts in the bark, it is a sign that the trees will soon die. As to wounds or gutterings, these defects may arise from local causes, and are not necessarily the results of old age. — *Loudon's Mag.*

TURNING IN GREEN CROPS.

To increase continually the fertility of our arable lands, should ever be regarded by the farmer as an object of the greatest consequence. By adopting improved systems of husbandry, and taking care to manure highly, or, in other words, to return somewhat more to the soil than is extracted by the crop, — this is a task of comparatively easy accomplishment, and the farmer who carefully practises upon this principle, will find that while he has actually larger and better crops, his fields are also, at the same time, becoming richer in the principles essential to a healthy vegetation, and to vegetable life. One of the most judicious and economical methods of enriching emasculated or worn-out fields, is to turn in green crops — not carelessly, and without reference to the character of the vegetable matter turned under, but with judgment and discrimination. The nature of the soil should be considered, and the adaptedness of the crop to supply its deficiencies critically examined — a matter requiring skill, and a good degree of practical experience to render it efficient, and productive of the end desired.

The following extract from Dr. Dana's Muck Manual contains some important suggestions in relation to this matter; and I therefore present it, hoping that every reader of the Telegraph will carefully ponder its truth, and, if a farmer, apply them daily in his practice: —

"Turning in green crops," says Dr. Dana, "is only

returning to the soil the salts, silicates and *geine*, which the plant had drawn from it, together with all the organic matter the plant itself has elaborated from oxygen and hydrogen, carbon and nitrogen, from whatever source derived. It has decomposed, during the short period of its growth, more silicates and salts than the air ever could effect during the same period, which, being turned in, restore to the soil from which they grew, salts and silicates in a new form, whose action on vegetation is like that of alkalies. But powerful as is the action of green crops turned in, it is the experience of some practical men, that one crop allowed to perfect itself, and then die where it grew, and then turned in dry, is superior to three turned in green. The whole result is explained by the fact that dry plants give more *geine* than green. Green plants ferment — dry plants decay. A large portion escapes in fermentation as gas; and more volatile products are formed than during decay. The one is a quick consuming fire, the other a slow, smouldering ember, giving off during all its process, gases which feed plants and decompose the silicates of the soil."

Every practical agriculturist, who has made use of his head in the management of his lands, must be fully aware, however, that many crops produce much more beneficial results when turned in green. This, indeed, is the fact in reference to buckwheat, clover, and the culmiferous class of plants generally. The first-named article, if permitted to stand till the grain becomes fully ripe, and the haulm dry, will be diminished four fifths in bulk, and, I doubt not, nearly as much in value for all possible purposes of vegetable enrichment; and this supposition appears, indeed, to be fully sustained and demonstrated by the experience of practical farmers every where.

The efficacy of silicates, in producing fertility, is thus lucidly explained by the author above quoted: —

"The power of fertility which exists in the silicates of the soil is unlimited. An improved agriculture must depend on the skill with which this power is brought into action. It can be done only by the conjunction of salts, *geine*, and plants. Barren sands are worthless; a peat bog is little better; but a practical illustration of the principles which have been maintained, is afforded by every sandy knoll made fertile by spreading swamp muck upon it. This is giving *geine* to silicates. The very act of exposure of this swamp muck has caused an evolution of carbonic acid gas; that decomposes the silicates of potash in the sand; that potash converts the insoluble into soluble manure; and lo! a crop. That growing crop adds its power to the *geine*. If all the long series of experiments after Von Voght, in Germany, are to be believed, confirmed as they are by repeated experiments by our own agriculturists, it is not to be doubted that every inch of sand knoll, on every farm, may be changed into a soil, in thirteen years, of half that number of inches of good mould."

By turning in, occasionally, a green crop of either of the vegetables above named, the soil will be so much invigorated as to render the cultivation of it much more profitable for some years; and as crops for this purpose can be selected which, by their quick growth, obviate the necessity of a fallow, the cost of ameliorating the land is comparatively slight; indeed, so slight, under most circumstances, as to be scarcely worthy of being taken into account.

A PRACTICAL FARMER.

BALD EAGLE FARM, June 8, 1849.

— *Germantown Telegraph.*

MOSSES ON MEADOWS.

Mosses on meadows, like vermin on cattle, are a consequence rather than a cause of evil. They indicate a deficiency of stamina, health, or condition in

the field or animal, rather than induce it themselves. But where either exist, they show something radically deficient, which must first be remedied before any useful results can follow. A farmer might as well leave his money with sharpers, or his manure heap under a spout, as his meadows in moss, or his cattle covered with vermin. All are spendthrifts together; and, if left to themselves, will, like Pharaoh's lean kine, soon consume his evidences of previous plenty, and show no equivalents in return. But how are we to get rid of mosses in meadows? Let us see how they get there. The surest way to get rich, is first to know how you become poor.

Mosses are generally the result of a feeble growth of the grasses on a moist surface. The moisture of the land is not of itself objectionable, but decidedly the reverse; but when the profitable occupants of the soil fail or become thin and meagre, the profitless are ever ready to come in and supply their places. This is the case with the mosses; and it is not till the cultivated plants have declined, that these have gathered strength. To remove the latter, the former should be put in the very best condition. Scarifying, harrowing, closely feeding, and treading them thoroughly by the sharp hoofs of sheep and cattle, are all useful in extirpating the mosses from meadows. Sowing strong quick lime over them, when recently mown, or after short cropping by animals, is attended with decided advantage. Ashes will sometimes produce a similar effect. Guano, when mixed with mould and sown broadcast, is exceedingly useful; and so, too, are compost manures of all kinds. These help to destroy the mosses by invigorating the grasses. Properly draining, and especially thorough under-draining the lands, is one of the most efficient modes of removing mosses and worthless aquatic plants. By carrying off all surplus, and particularly stagnant waters, the atmosphere and heat penetrate the soil, and induce a vigorous, healthy growth of the cultivated plants, and thereby withdraw so much of the space and food which otherwise would be monopolized by the intruders.

When these and some other of the most obvious means of renovating meadows fail, there is no alternative but to break up the sod, and subject the field to another course of cultivation. It is not absolutely necessary that this undergo a series of rotations, although for many reasons this is better; yet a rotation may be secured exclusively with the forage plants, the clovers, and numerous varieties of the grasses. The meadow may, if it be preferred, be thoroughly manured with unfermented dung, then turned over flat, and after applying a top-dressing of compost, may be harrowed lengthwise of the furrows, and sown with grass seed liberally; and if all has been properly managed, the mosses will not for years again infest your meadows. — *American Agriculturist*.

SUGGESTIONS FOR FARMERS.

THE STUDY OF NATURE RECOMMENDED.

Much has been said and written within the last few years on the importance of the study of natural science to the farmer; still, we think that the subject is so important that there is little danger of too much being said. The study of natural history has received so little attention in the United States, that very few farmers have a familiar knowledge of chemistry, geology, mineralogy, and botany, not to mention entomology, which may be said to be in its infancy in this country, a large portion of our insects yet remaining unknown and undescribed. Let the votary of natural science travel to collect specimens, and he will often be questioned respecting the use of his specimens. If he gathers plants, the general impression will be, that they are for medicine. He

will rarely meet with any one who knows the utility of a cabinet or an herbarium, almost every body supposing that they are to be converted into money in some way; yet to what practical use many of the specimens can be applied, they cannot tell.

It is an old saying, that "knowledge is power;" and this maxim is most strikingly verified in the pursuit of farming; so much so that individuals, farming in the same neighborhood, with farms of an equal natural fertility, meet with widely different results. The one has large profits on his capital invested, and the other, perhaps, sinks money, or with difficulty raises sufficient to defray all expenses and support his family. The one obeys nature and her laws, and the other manages without system and contrary to nature. It may be said that many farmers make money, and are highly successful, with little or no knowledge of natural science. Granted; yet it must be admitted that they had derived benefit from the example of others, who were acquainted with natural science, or they have more or less followed the instructions of men who, by experiment and observation, have attained at least a partial knowledge of the laws of nature. Besides, if we examine closely, we shall find that most of our very rich ignorant farmers have acquired money by great industry and economy, carrying the latter virtue to so great an extent as to deny themselves and their families many of the comforts and conveniences of life. All will admit that a knowledge of chemistry, geology, and botany, embracing a knowledge of vegetable physiology, would be of great practical utility to the farmer. Were he a chemist, he could analyze the soil; and to do this, sufficient for all practical purposes, is within the capacity of all. By analyzing the soil, and knowing, in addition, the composition of the plant cultivated, the farmer knows what his soil needs, to grow that plant in its greatest perfection; or, in other words, he can feed the plant its proper food, and in suitable quantities. The farmer deals with nature. The greater portion of his life is spent amid the scenes of nature; hence, the more he understands nature, the better will he know how to manage her in her varied changes. The great improvements which have been made in agriculture during the last few years, are mainly owing to the application of science; and as yet we are but in the commencement of the improving era. Then it behoves us, as farmers, to study nature, and let the youth of our land, the future farmers of our country, be taught the study of nature. Then, by knowledge joined with experiment, industry, and economy, they will scarcely fail to enjoy a competence, besides having a greater opportunity of making new discoveries in agriculture and science, than the professor, whose life is spent in the laboratory or academic hall.

Notwithstanding the great assistance science affords in the acquisition of wealth, we think the greatest recommendation to its study is its power of affording happiness, which, after all, is the chief end and aim of every rational being. Our best and most permanent happiness is mental, or derived from the mind. All other enjoyments are shared by the brutes, in common with man. Hence it follows, that the highly-cultivated mind is capable of greater enjoyment than that which is uncultivated, because the cultivated mind has a greater variety of food to satisfy its desires. We say its capacity for happiness is the greatest; not that, in every instance, the cultivated mind is always the happiest. We think the cultivated mind, versed in natural science, is the happiest of all, because the study of nature is more congenial to the mind in its natural state than any other. Most of us recur with pleasure to the period of our childhood, when we roamed in the woods and fields, gathering flowers and hunting birds' nests, or chased butterflies, and played in the brooks. Then

was the time that all nature looked smiling, and then was the time to have instilled into our breasts a love of nature, by instructing us in the first principles of natural science. We have been told that Mr. Barnes, whose name is identified with the conchology of this country, many years ago had charge of a public school in the city of New York, and was highly successful in managing and improving his boys, besides implanting in their bosoms a strong love of nature, without interfering with their other studies. He encouraged the boys to gather curious stones, pebbles, shells, &c., during the time of intermission, and bring them to him. He would then name them, and talk about them, returning to each boy his own specimen; and the boys began to form cabinets for themselves. The effect was, it kept the boys out of mischief, besides affording them useful knowledge. Many of the boys of that school preferred gathering specimens of natural history to play, and several of them afterwards became distinguished naturalists. But the present system of common school education tends to deaden, instead of strengthening, a love of nature in children. Even in our higher schools and colleges, the study of natural science is considered of secondary importance, and there, if taught, it is generally done very superficially; however, a brighter day begins to dawn, and its importance is seen and felt by many.

A great proof of the power of the study of natural history to afford happiness, is the health-giving principle. It leads its votaries to spend much time in the open air, amid the glorious scenes of creation, where their minds are agreeably entertained by the surrounding objects, whose order and beautiful adaptation of means to ends excite both admiration and wonder. That the state of the mind has a great influence upon the body, is well known to all. Its power to restore to health dyspeptic and consumptive persons is magical. We know of several distinguished naturalists, who think that they are indebted to their love of nature for their health and life. At one time, the state of our health was such, that our friends supposed we would not live long, and we almost despaired of life. Away from home, in the university at Middletown, Ct., we began the study of mineralogy, and the formation of a cabinet. With congenial spirits, we roamed over the glorious hills of New England, examined her quarries, mines, and stone fences, in search of specimens. We had happy times. Our health was restored.

A great recommendation to the study of nature, and one which should induce parents to have their children so instructed, is, that it is a great preventive of vice and dissipation, because the mind of the naturalist is never at loss for employment, for suitable food. Let him be where he may, the great book of nature is ever open, inviting his study and attention, always presenting something new or wonderful. The order and variety which nature displays, is one great cause of the study of natural history being so fascinating, since the love of variety is deeply implanted in the human heart. The mind of the student of nature is never at a loss for company, for good society. He has no need of resorting to the tavern, the grog-shop, or gambling-house, to pass away the time. Let farmers' sons be well educated, especially in the different branches of natural history; then they would not become dissatisfied with their vocation, as it sometimes happens, but they would prefer it to every other. Supposing that a farmer knows the correct name of every plant, with its properties, that grows on his farm, the composition of its soil, its minerals, and rocks; would not such knowledge add greatly to his happiness? Then he would do his work understandingly, and his daily walks in the fields would be enlivened by familiar acquaintances. Not a flower, or plant, or

pebble, would escape his notice; indeed, there is nothing which tends more than the study of nature to increase the powers of observation. The naturalist sees beauties unseen by others; tastes pleasures unknown and unfelt to others. "He sees wisdom in the trees, books in the running brooks, sermons in stones, and good in every thing." He does not become tired and disgusted with life, and find fault with the world and the order of Providence; but the more he studies, the more he discovers wisdom, design, and goodness in the arrangement of things, and a unity of design in that arrangement, proclaiming that its Author is one and the same, possessing all knowledge and power. It has often been said that a country life is the happiest, and poets have often sung its praises; for this the citizen pants while toiling to amass a fortune; and yet such a one, after having accomplished his wishes, and purchased a seat in the country, is often doomed to disappointment, simply for the reason that such a life is different from his former habits, which have become to him a second nature; besides, he is ignorant of natural history, and a country life soon loses its charms, and he longs to return to his former busy avocation. Had such a one a knowledge of and taste for nature, how happily could he pass his life amid the varied scenes of a country life!

S. B. BUCKLEY.

WEST DRESDEN, YATES CO., N. Y., Dec., 1848.
— *Lancaster (Pa.) Farmer.*

DISEASES IN HORSES.

Broken Wind. — Broken wind is a disease with which horses are affected. The air-cells of the lungs become ruptured, from various causes, and respiration is labored and irregular. "The cure of a broken-winded horse," says Youatt, "no one ever witnessed, yet much may be done by way of palliation. The food of the animal should consist of much nutriment condensed into a small compass; the quantity of oats should be increased and that of hay diminished; the bowels should be gently relaxed by the frequent use of mashes; the water should be given sparingly through the day, although at night the thirst of the animal should be fully satisfied; and exercise should never be taken when the stomach is full. It will scarcely be believed how much relief these simple measures will afford the broken-winded horse, and of how much exertion he may be gradually rendered capable. Carrots are very useful to the broken-winded horse, not only as maintaining much nutriment and considerable moisture, so that less water may be required, but from some property they possess rendering them useful in every chest affection. A broken-winded horse turned out to grass, will never improve, on account of the almost constant distention of the stomach."

Worms. — It is to be presumed that the horse is troubled with worms when he has frequent attacks of colic, when he loses his appetite and strength, without any apparent cause. He should take bitter infusions, as wormwood, or tansy, and infusions of Carolina pink. Another excellent vermifuge is soot from a chimney where wood is burnt, given in doses of three or four ounces, mixed with warm milk.

Wens. — Tumors at first soft and indolent, which grow under the skin, and which have a tendency to become hard, and increase in size indefinitely, — the only sure method is to cut them out. This may be safely done, care being taken not to wound a blood vessel, or other important part. — *Selected.*

A bushel of wheat, weighing sixty-two pounds, contains 550,000 kernels.



THE HONEY-HEART CHERRY-TREE.

This variety is also called *Sparhawk's Honey*, and it was formerly called *Rogers's Pale Red*. The *Honey Heart* is doubtless a native variety, and it probably originated in this vicinity some sixty years ago. Mr. Samuel Hyde, an aged gentleman, of Newton, first saw it in that town, and he propagated it in his nursery, from the original tree, as he thinks.

It was called *Rogers's Pale Red*. His sons, and successors in the nursery business, Messrs. S. & G. Hyde, gave to this cherry the name *Honey Heart*, and under this appropriate appellation it has been extensively disseminated. As some authors called it *Sparhawk's Honey*, without sufficient authority, as we think, — for those who had first introduced had previously named it, — this name obtained considerably for a while, but of late its true name is becoming prevalent.

This tree is hardy, and luxuriant in growth, forming a beautiful, rounded, compact head, as may be seen by our engraving. The young wood is stout and vigorous, and the leaves are long and narrow,



Fruit.

and of a fine dark green color. The tree is large and productive, and the fruit is unusually hardy against storms, which often destroy cherries very extensively, when they occur just before their ripening.

The fruit is of medial size; flattish-roundish, heart-shaped; skin very thin, glossy, bright amber and red, the red finely variegated with minute specks of yellow or amber; stem slender, and rather long; flesh yellowish, very tender, juicy, sweet, and delicious; the stone rather large. Rather late; ripening from the 1st to the 12th of July. This late season from the 12th to the 20th.

The *Honey Heart* is one of the very best of all cherries, particularly for the private garden. Some larger kinds, of inferior quality, may be more profitable for the market. But many intelligent horticulturists say that if they had but one cherry-tree for their own use, they would choose the *Honey Heart*; and we consider this opinion correct.

Cherry-trees have a great variety of forms. The *Black Tartarean*, *Elkhorn*, *Richardson*, and some others, run up in a high, narrow top. Others are spreading, and some are weeping. The *Honey Heart* is very handsome in form, and with its rich, luxuriant foliage, is very ornamental, to say nothing of its fine flowers and delicious and beautiful fruit. Our engraving, is from a large and very flourishing tree in the garden of Mr. H. K. Moore, Chelsea.

LONGEVITY OF THE HORSE.

It has long been an impression that the ordinary duration of a horse's life is much shorter than it ought to be, and that the excess of mortality is the result of carelessness or ignorant management. The great error consists in regard to the temperament and general constitution of a horse as altogether different from those of a human being; whereas they are precisely the same in all important respects. Disease arising from excessive fatigue, overheating, and exposure to air, want of exercise, improper diet, both as respects quality and quantity, and from many other causes, affects the horse and his master alike, and neglect in either case must terminate fatally. Indeed, when a man or a horse has acquired, by a course of training, a high degree of health and vigor, the skin of each is an infallible index of the fact. It has been often remarked in England, that the skin of the pugilist, who has undergone a severe course of training, when he prepares himself for the fight, exhibits a degree of beauty and exceeding fairness, that excites the admiration as well as the wonder of the spectator. So with the horse — his skin is the clearest evidence of the general state of his health. Even the common disease of foundering is not peculiar to the horse, but is merely a muscular affection, to which many men, who have overstrained themselves at any period, are subject. In fact, the medical treatment of the horse and his rider ought to be the same; and we confidently believe that if this principle were acted upon with a moderate share of attention and resolution, the average age of this useful animal would be much longer, and the profit derived from his labors proportionably greater. — *Norfolk Beacon.*

PLEASURES CONNECTED WITH THE PURSUIT OF SCIENCE.

There is no station in life, however lowly, but has its sweets, and there is no station in life, however high, but has its sorrows. In no instance can sorrow be traced to the pursuit of science. Whatever pleasure it may bring, one thing is certainly true, — it brings no sorrows. On the contrary, it is a source of enjoyment to every man who has a taste to pursue it, be that man an humble tradesman or a wealthy merchant. It is a common opinion that no man is scientific unless he is master of all the abstract knowledge relating to astronomy, mathematics, chemistry, geology, and is somewhat versed in Latin and Greek. But where can we find a man so thoroughly endowed with scientific knowledge? There are men who have a partial knowledge of these sciences, and we are among the number of those who do not believe in the old adage, "A little knowledge does more harm than good." That man is scientific who is master of his trade, understands all its principles and practices, or is master of his profession, be it teacher of languages or mathematics. So much for practical scientific attainments. And now what shall we say regarding more knowledge than merely comes within the scope of a man's business and profession? We have every thing to say that is favorable. The more knowledge a man possesses, he is more likely to be a better citizen and member of society. Ignorance degrades, knowledge elevates.

How much pleasure would a shoemaker derive from being acquainted with the principles of the steam engine, or the mysteries of chemistry! He could not turn to the right or to the left, in the course of a short walk, without having his mind attracted to something interesting and useful, and calculated to draw his mind from the drudgeries of his own occupation, which, we regret to say, often excites our sympathies as we believe shoemakers are not so

well paid for their labor as they should be. And with regard to chemical science, it would teach many of them to labor in better ventilated apartments, than they in general do. How much pleasure would a tailor, or any other tradesman, enjoy, if he possessed some knowledge of geology: it makes no matter how little it may be at first, — it is of so attractive and pleasurable a nature, that "the little leaven would soon leaven the whole lump." If he takes a walk into the fields, he is delighted not only with the perspective beauties of nature, but with its wonders too. The mute rocks speak to him in a well-known tongue, and the pebbles by the river side chant to him the song of mountain rill and cataract. He may lift up a grain of the carburet of iron, and his mental eye sees it in the pencil of the artist, sketching the outlines of some immortal work of art. He may lift from beneath his feet a crystal of the magnetic oxide of iron, and his mental eye may figure it transformed into the pen of the statesman or author; or into the sword of the warrior, or the husbandman's ploughshare of peace. He may lift up a blackish-brown powder from beneath his feet, and to others it would be as an idle tale; but his mental eye can trace the chromate of iron adorning, in orange or gold colors, the turban of the Tartar or the scarf of the fair. Did space permit, we might here branch out into a most interesting and instructive field; but it is as well, perhaps, that we cannot do so at present, and we believe that it is far better to present objects to make others think, than to deal with subjects in such a manner as to prevent them from thinking. — *Selected.*

ON THE ORIGIN AND DIVERSITY OF SOILS.

BY PROFESSOR H. COULTAS.

If the origin of soils be considered with reference to the geological agents which have produced them, and the whole be then considered in connection with practical agriculture, the subject will be found to be very interesting and instructive. I purpose treating on these topics in this and subsequent articles.

The science of geology explains those natural agencies by which soils have been gradually and slowly produced, and which have effected their distribution in such diversity of character over the earth's surface. From a partial examination of the surface, we might suppose that the interior of the earth was all confusion and irregularity: sands and gravels, limestones and clays, are mingled together without any apparent order; and hence it is that such an opinion is actually entertained by many persons. The examination of these superficial accumulations of gravel, together with the vegetable soil generally resting on them, teaches us little concerning the true structure of the earth: on the contrary, this loose, superficial matter, and this grassy mantle covering the earth's surface, only tends to mask and conceal its real features from observation; and hence, to become acquainted with the structure of the interior, we must examine a spot where the crust of the earth has been broken, either by a natural or artificial cause, and presents what geologists call a natural or artificial section, as, for example, a sea-cliff, ravine, railway cutting, quarry, or coal mine: we shall then see that the crust of the earth is composed of a series of mineral masses piled one above the other, and observing a regular order of superposition.

It may be remarked here, that the examination of the superficial gravels has brought to light many facts in relation to the revolutions which the earth's surface has undergone. When examined scientifically, these gravels are found to consist chiefly of the decomposed substance of the under-lying rocks,

or those in the immediate neighborhood, which have been transported from the adjacent hills by superficial currents of water. It is common, however, to find fragments of rock which bear indubitable evidence of having come from a considerable distance, there being no rock like them in the neighborhood, or for many miles around. The fact is, that the superficial gravels constituting the diluvium and alluvium of the geologists, are composed of the wreck of strata of all ages, alluvial formations having occurred in all ages, the disintegration of rocks and the transportation of their loose material having taken place in every period since the surface of the earth was first divided into land and sea. Hence it is an easy matter to pick up, out of almost any collection of gravel, specimens of granite, porphyry, slate, sandstone, in short, of almost every kind of primary, transition, and secondary rock known to the geologist.

Now, although the layers, or strata, constituting the structure of the mineral masses which form the crust of the globe, have originally been deposited from water in the horizontal posture, as is evident from their identity in structure with modern strata formed by aqueous deposition of sediment at the mouths of rivers, or on the coasts left dry by the retreat of the sea, yet, nevertheless, owing to earthquakes which have taken place repeatedly, and at vast intervals of time, the greater part of them have been thrown out of the horizontal posture and dip, and strike into the earth at every angle of inclination from 0° to 90°. Hence it is that the edge of the beds emerge in succession from the bowels of the earth; and in travelling over a given district, we pass over the edges of the upturned beds, the soil varying with every new bed, and the amount of superficial area covered by any particular soil being in proportion to the thickness of the upturned bed out of which the soil has been formed.

The disturbance suffered by the strata, however disastrous to animal life at the time of its occurrence, has, nevertheless, been productive of much ultimate good. Had the strata continued in the horizontal posture, the same rock would have spread over a vast extent of country, and the soils of countries would have been the same. There would also have been a difficulty in obtaining valuable minerals, which can now be had with the greatest facility. Coal, for example, which lies at a considerable depth, could not have been obtained without boring through the upper series of strata. The surface of the earth would not have been diversified with its present grand and beautiful scenery, produced by mountain, hill, and valley; and that the admirable intermixture of mineral matter, which is so essential to the fertility of the soils, and the variety and progress of organic life on the globe, would never have taken place.

The whole subject of the formation of vegetable soils, and their distribution in such diversity of character over the face of the earth, is replete with the profoundest interest and instruction. Every earthquake which in by-gone time fractured and dislocated the solid strata, every flood which has swept over the ancient continent, every change of level which has elevated the bed of the ocean, or depressed the land beneath its surface, has contributed to bring about the present admirable intermixture of material—sand, clay, and lime, which now forms the earth's upper covering,—the fruit-bearing soil, the inexhaustible source of national prosperity and strength. — *Philadelphia Dollar Newspaper.*

SOAP SUDS.

This is a most valuable article, and should be strictly economized by every farmer who is desirous

of increasing the fertility of his lands. Where no provision has been made to secure the advantages resulting from a systematic economization of this valuable liquid, by its conveyance to the compost heap, a large reservoir should be constructed, into which the suds may be conveyed daily, as fast as made, and from which it should be removed, every three or four days, to the fields, for purposes of irrigation. Grain and grass crops watered frequently with this valuable liquid exhibit surprising luxuriance, and are usually much more forward than crops of the same kind which are not so assisted. Some farmers have a low carriage, on which they place a hogshead, or old wine pipe, so fixed as to admit of the contents being let off in various directions over the soil as the carriage proceeds, and in a manner somewhat similar to that in which our watering machines disseminate their cooling contents in our streets during the heat of summer. These irrigating machines, though of unquestionable utility to the farmer, are yet of moderate expense: the carriage may be constructed by any laborer who can use an auger and handsaw, and as to the "tank," or reservoir, it may be either a wine pipe, molasses hogshead, or box. All that is necessary is to procure a vessel that is tight, and sufficiently strong to withstand the jolting of the carriage when driven rapidly over rough lands, when full. Of all the articles used for purposes of irrigation, this is unquestionably and without doubt the most valuable. It contains the food of plants in a state of ready and complete solution, and is consequently immediately available to the spongioles, on being applied to the medium or soil in which they grow. By watering garden beds with this liquid, we have found the ravages of bugs and aligerous insects of all kinds, as well as the depredations of slugs and worms, almost immediately arrested. The striped bug, so frequently found on vineous vegetables, although it will not wholly forsake, will yet cease in a great measure to infest them, if copiously watered with suds. It is also highly beneficial to fruit trees. By washing the trunks of plum, cherry, peach, and apple-trees with fresh suds, many cutaneous diseases are speedily and permanently cured. In many instances, cases of inveterate barrenness, of long standing, have been remedied, and the trees rendered surprisingly healthy and prolific. — *Maine Cultivator.*

FLOATING BEE-HOUSES.

In Lower Egypt, where the flower harvest is not so early by several weeks as in the upper districts of that country, the practice of transportation is carried on to a considerable extent. About the end of October, the hives, after being collected together from the different villages, and conveyed up the Nile, marked and numbered by the individuals to whom they belong, are heaped pyramidically upon the boats prepared to receive them, which, floating down the river, and stopping at certain stages of their passage, remain there a longer or shorter time, according to the produce which is afforded by the surrounding country. After travelling three months in this manner, the bees having culled the perfumes of the orange flowers of the Said, the essence of roses of the Facium, the treasures of the Arabian jessamine, and a variety of flowers, are brought back, about the beginning of February, to the places from which they have been carried. The productiveness of the flowers at each respective stage is ascertained by the gradual descent of the boats in the water, and which is probably noted by a scale of measurement. This industry produces for the Egyptians delicious honey and abundance of beeswax. — *Dr. Bevan.*

Domestic Department.

BOILING RICE. — Many persons nearly spoil rice by boiling it too much, as it becomes gluey or clammy, sticking together like paste. Rice may be well cooked, and yet the grains remain entire, so that the same or any liquid will run through them; and thus cooked, it is far superior to that which is overdone, as is often, or we may say usually, the case; for not one in four are skilful in preparing this article. The following directions are worthy the attention of those not skilled in this piece of culinary art:—

Take one pint of rice, wash it, and put it in soak for two hours. Have ready two quarts of boiling water, with a little salt in it, in a stewpan. Half an hour before you wish to use it, pour the water, in which the rice is soaked, from it, and, with a tablespoon, shake the rice into the stewpan, without stirring it, and let it boil ten minutes; then strain the liquid from the rice. Return the rice to the stewpan, and let it steam for fifteen or twenty minutes, when it will be done, and the grains will be separate. Add a little butter, and send it to the table.

A MOTHER'S VOICE. — The editor of the Cincinnati Atlas concludes a notice of a visit to the Asylum for the Deaf and Dumb at Columbus, Ohio, by relating the following:—

Of one, an intelligent and modest young lady, who had become deaf from sickness when two years and a half old, we inquired whether she could recollect any thing of sounds or words. She answered that she could not. It occurred to us that there might have been at least one sound which might be remembered even from that tender age, and we ventured to inquire whether she had no recollection of her mother's voice. It will be long before we forget the sweet, peculiar smile which shone upon her features, as, by a quick inclination of her head, she answered, yes. What a world of thought and feeling clusters around such a fact! In all her memory there is but one sound, and that is her mother's voice. For years she has dwelt in a silence unbroken from without, but those gentle tones of love still linger in her heart. There they can never die; and if her life should be prolonged to threescore years and ten, o'er the long silent track of her life the memory of that voice will come, in loveliness and beauty, reviving the soul of weary old age with the fresh, lovely sounds of her cradle hours. — *Michigan Farmer.*

COTTAGE POTATO PUDDING. — Parboil and mash two pounds of potatoes; beat them up into a smooth batter, with about three quarters of a pint of milk, two ounces of moist sugar, and three beaten eggs. Bake it about three quarters of an hour. Three ounces of currants or raisins may be added. Leave out the milk, and add three ounces of butter. Bake in pattypans, with tart paste at the bottom, or add a little flour, and it will make a nice cake. — *Selected.*

BREAD AND BUTTER. — Perhaps it is not generally known that boiled potatoes, peeled while hot, and well mashed with a little new milk and fine salt, make a very good substitute for bread and butter.

Boys' Department.

VULGARITY. — We would guard the young against the use of every word that is not perfectly proper. Use no profane expressions — allude to no sentence that will put to blush the most sensitive. You know not the tendency of habitually using indecent and profane language. It may never be obliterated from your hearts. When you grow up, you will find at your tongue's end some expression that you would not use for any money. It was one you learned when you was quite young. By being careful, you will save yourself a deal of mortification and sorrow. Good men have been taken sick and become delirious. In these moments, they have used the most vile and indecent language imaginable. When informed of it, after a restoration to health, they had no idea of the pain they had given their friends, and stated that they had learned and repeated the expressions in childhood; and though years had passed since they had spoken a bad word, the early impressions had been indelibly stamped upon the heart. Think of this, ye who are tempted to use improper language, and never disgrace yourselves.

"It chills my blood to hear the blest Supreme
Rudely appealed to on each trifling theme:
Maintain your rank, vulgarity despise;
To swear is neither brave, polite, nor wise:
You would not swear upon a bed of death;
Reflect, your Maker now may stop your breath."

— *Literary Union.*

LEARNING NOT EDUCATION. — There is a great mistake about what is called *education*. Some suppose a learned man is an educated man. No such thing. That man is educated who knows himself, and who takes accurate common-sense views of men and things around him. Some very learned men are the greatest fools in the world: the reason is, that they are not educated men. Learning is only the means, not the end: its value consists in giving the means of acquiring knowledge; the discipline which, when properly managed, it gives the mind. Some of the greatest men in the world were not overstocked with learning, but their actions proved that they were thoroughly educated.

Washington, Franklin, Sherman, were of this class; and similar, though less striking instances, may be found in all countries. To be educated, a man must learn to think, reason, compare, and decide accurately. He may study metaphysics till he is gray, and languages till he is a walking polyglot, and if he is nothing more, he is an uneducated man. There is no class in the country who have a stronger interest in the education of their children than farmers; and the subject should receive from them the attention it deserves. — *Literary Union.*

BOOKS. — Books may be likened to a vast reservoir, and the reading of them to a conduit, which leads out a stream of knowledge to refresh and invigorate the mind. Reading, to him who is in search of knowledge, is a cloud by day and a pillar of fire by night, to guide him along an uncertain, dark, and rugged way. It gives a constant and vigorous impulse to the mind, and is as necessary to its healthful action as food is to the body. By means of reading, the treasures of history, the wonders of astronomy and chemistry, the beauties of poetry and eloquence, are opened to our view, to enrich our minds, to exalt and purify our hearts. The experience of ages is placed within our reach, and we have only to cultivate our memories to retain its treas-

ures. It is true, much of this advantage and improvement is predicated on the judicious selection of books. If this be neglected, they may be the instruments to minister to a diseased imagination and a depraved taste, and afford as little benefit to the reader as deadly poison would to him who used it instead of healthful aliment. — *Common School Advocate.*

Health.

PURE WATER THE BEST DRINK. — There is no axiom of health more just than that "men never have a true appetite till they eat with relish any ordinary food." It is told of John Bailes, who lived to the age of one hundred and twenty-eight, that his food for the most part consisted of brown bread and cheese, and his drink water and milk. He had buried the town of Northampton twenty times over, excepting three or four; and it is said strong drink killed them all. Water manifestly is the natural beverage of all animals; whole nations, as the Mahometans and the Hindoos, use it alone as a beverage; and, unlike other drink, it will not sate the appetite, but the contrary; indeed, it was observed by Hippocrates, above two thousand years ago, that water-drinkers have generally keen appetites. It is a fluid that requires no digestion, for it is not necessary that it should undergo any changes; it is the natural menstruum that holds in solution both what is essential for the healthy functions of the body, and what has become a refuse, after serving its destined office and intention in the animal kingdom. Water, therefore, from its congenial qualities, can never much disturb the system; and when it does, it is speedily expelled by its natural outlets, the skin and kidneys. It is told of Lord Heathfield, so well known for his hardy habits of military discipline and watchfulness, that his food was vegetable and his drink water, never indulging himself in animal food or wine. And Sir John Sinclair, in his work on longevity, says, in his account of Mary Campbell, then aged one hundred and five, that she preferred pure water to any other drink. — *Selected.*

EXPANDING THE CHEST. — Those in wealthy circumstances, or who pursue sedentary employments within doors, generally use their lungs but very little, — breathe but very little air into the chest, and thus, independently of positions, contract a wretchedly narrow, small chest, and lay the foundation for the loss of health and beauty. All this can be perfectly obviated by a little attention to the manner of breathing. Recollect the lungs are like a bladder in their structure, and can be stretched open to double their ordinary size, with perfect safety, giving a noble chest, and perfect immunity from consumption. The agent, and the only agent required, is the common air we breathe, supposing, however, that no obstacle exist, external to the chest, such as lacing, or tying it around with stays, or tight dress, or having shoulders lay upon it. On rising from the bed in the morning, place yourself in an erect posture, your chest thrown back, and shoulders entirely off the chest; now inhale or suck in all the air you can, so as to fill the chest to the very bottom of it, so that no more air can be got in; now hold your breath, and throw your arms off behind, holding in your breath as long as possible. Repeat these long breaths as many times as you please. Done in a cold room is much better, because the air is much denser, and will act much more powerfully in expanding the chest. Exercising the

chest in this manner, it will become very flexible and expandible, and will enlarge the capacity and size of the lungs. — *Common School Advocate.*

EXERCISE. — Exercise gives strength to every fibre, and energy to all the vital powers. But exercise, like most good practices and habits, may be carried to excess. Extreme toil not only shortens life, but brings less to pass than steady but moderate labor. It is not, therefore, often advisable for farmers to undertake to perform what are called "great days' works;" for one day of over-exertion may cause weeks of debility, if not months of sickness.

Mechanics' Department, Arts, &c.

NEW PROCESS OF TANNING. — The London Wesleyan Times speaks of a new process of tanning, recently patented by Dr. Turnbull, and successfully brought into operation by a company in Paris. The same principle, it appears, has been successfully worked by the London Leather Company, and a company has also been working under the same patent at Ivybridge, Devonshire. The most satisfactory testimony to the excellent quality of the article is borne by those who have constantly and for a very considerable period been wearing boots and shoes made of patent leather, and whose daily occupations subjected it to the severest test; and it was pronounced to be perfectly impervious to moisture, and decidedly the most serviceable as well as the most durable they had ever worn. It appears that the most important part of Dr. Turnbull's process is the dissolving and entirely extracting the lime from the skins by the use of sugar, and, at the same time, preserving the skins from the slightest amount of decomposition; whilst, by the old process, in the use of mastering pits, (made with the ordure of pigeons, dogs, &c.), a considerable loss is the unavoidable result. The next is the complete tanning in a few days, thereby fully meeting the point so long sought for by the government prior to the removal of the duty on leather, in order that the large amount of capital necessarily locked up for so long a period should now be set at liberty, and for which purpose they had employed the most scientific men of the day, and at very considerable expense. This extraordinary and beautiful law of nature, the principle of endosmos and exosmos, was first discovered by Dutrochet, and afterwards applied to the arts by Dr. Turnbull, who made it applicable to the purpose of tanning by placing solutions of oak bark of unequal density within and without the skins and hides, and thereby combining nature and art in producing the most successful and valuable results. — *Farmer and Mechanic.*

FIRE-PROOF WOOD. — The following recipe for attaining this object, emanates from a distinguished French chemist. Its efficiency can be easily tested. "Doctor Fuchs, member of the Academy of Munich, has discovered a composition made of granulated earth and alkali. To obtain it, the inventor says, you must dissolve some moist gravelly earth, which has been previously well washed, and cleansed from any heterogeneous matter, in a solution of caustic alkali. This mixture has the property of not becoming decomposed by fire or water. When spread upon wood, it forms a vitreous coat, and is proof against the two elements. The building committee of the Royal Theatre have twice publicly tried the composition on two small buildings; the one which

was not covered with the composition was consumed, while the other remained perfect and entire. The cost of this process is very insignificant compared with its great utility, being about two francs three centimes per hundred square feet. The Royal Theatre at Munich, has undergone this process, having about four hundred thousand square feet; the expense of which was about four or five thousand francs. — *Pennsylvania Cultivator.*

THE INFLUENCE OF THE MOON UPON THE WEATHER.

There is no more extensively known and universally believed superstition, than that the changes of the moon have some effect upon the weather. The classic student finds traces of this belief in very early times; and years and observation seem rather to have confirmed than to have shaken men's faith. Virgil, in his beautiful songs for the husbandmen, written before Christ was upon earth, thus gives the signs of the new moon: —

“If when the moon renews her refluent beam,
Through the dark air her horns obscurely gleam,
Along the wasted earth and stormy main
In torrents drives the congregated rain:
But if (unerring sign) the orb of night,
Clear, wheel through heaven her forth increasing light,
Rain, nor rude blast shall vex that hallowed day
And thus the month shall glide serene away.”

Another Latin writer, even earlier than Virgil, says that “if the new moon have its upper horn darkened, the last half of the month will be rainy. But if the lower horn be darkened, the first half of the month will be rainy; while if the middle be darkened, the middle of the month will be rainy.”

In our day the popular maxim seems to be that we may look for a change of weather at every change of moon.

It appears that there must be something to distinguish this from most other signs, or like them it would have its day and be forgotten. It becomes one, before he rejects it as altogether unworthy his notice, to account for its having taken such strong hold upon men's faith. We hear men every few days uttering their grave predictions concerning the weather; and, if you question their signs, they solemnly assure us that many years' observation goes further with them, than all our scientific scepticism.

And there have been individuals, who, during the greater part of their lives, have compared the changes of the moon and weather. Toaldo, of Padua, made these observations for forty-five years. Every change of the weather occurring within three days, either before or after a change of the moon, he attributed to that change; and that is about the time generally claimed. He gives us, as the result of these tedious calculations, that out of every seven new moons, six were attended with change of weather; out of every six full moons, five were attended with change; and out of every three quarter moons, two were attended with change.

Others have made similar observations, and have arrived at similar conclusions. Do we discover any principle here? Or how shall these remarkable coincidences be accounted for? Let us see. From the time of new moon till the time of new moon again, is just about one month. During that time it goes through its four changes. This makes its changes occur at about a week's interval. Now, allowing three days before and three days after each change to be influenced by that change, and it will leave but one day in the week independent!

Need we wonder, then, that out of seven new moons six were attended with rain? A much greater wonder to me is, that sixty-nine out of seventy were not thus attended.

In reading the faithful observations of these patient men, I am sometimes reminded of the anecdotes travellers tell of the North American Indians. Sometimes they suffer severely from drought; and after having tried sacrifice and self-torture in vain, they resort to one expedient, which they say has never failed to be followed by immediate rain. Spurn not to be taught by a son of the forest. The ceremony is simple; any one can try it at his will; and my word for it, it will rain the minute he is through.

One of the chiefs gets upon some high hill, or upon the roof of a hut, and commences shaking his fists at the clouds, shooting his arrows in the sky, and defying the storm-god to afflict them longer. When he gets tired another takes his place, and so they keep it up, day after day, week after week, and month after month; and, what is most mysterious — perfectly inscrutable — is, it always brings the rain! The clouds have to yield. The storm-god gives over the battle.

Should we see such a performance going on in one of our towns, we should pronounce it ridiculous. But I am at a loss to know how much less ridiculous to consider it, when I see a person step up to the corner on a rainy day, take down the almanac, and very sagely remark, “Ah! I see what made it rain to-day. The moon changed three days ago,” or else “will change in three days,” as the case may be; and that, too, when one minute's thought would teach them, that not one hour of their lives is removed by four days from some one of the moon's changes. — *Wright's Paper.*

ON THE PRACTICAL USE OF LEAVES.

There are two facts in the functions of the leaf which are worth consideration on account of their practical bearings. The food of plants is, for the most part, taken in solution through its roots. Various minerals — silic, lime, alumina, magnesia, potash — are passed into the tree in a dissolved state. The sap passes to the leaf, the superfluous water is given off, but not the substances which it held in solution. These, in part, are distributed through the plant, and, in part, remain as a deposit in the cells of the leaf. Gradually the leaf chokes up, its functions are impeded, and finally entirely stopped. When the leaf drops it contains a large per cent. of mineral matter. An autumnal or old leaf yields, upon analysis, a very much larger proportion of earthy matter than a vernal leaf, which, being yet young, has not received within its cells any considerable deposit. It will be found, also, that the leaves contain a very much higher per cent. of mineral matter than the wood of the trunk. The dried leaves of the elm contain more than eleven per cent. of ashes, (earthy matter,) while the wood contains less than two per cent.; those of the willow more than eight per cent., while the wood was only 0.45; those of the beech 6.69, the wood only 0.36; those of the (European) oak 4.05, the wood only 0.21; those of the pitch pine 3.15, the wood only 0.25 per cent.*

It is very plain, from these facts, that, in forests, the mineral ingredients of the soil perform a sort of circulation; entering the root, they are deposited in the leaf; then, with its fall to the earth, and by its decay, they are restored to the soil, again to travel their circuit. Forest soils, therefore, instead of being impoverished by the growth of trees, receive back annually the greatest proportion of those mineral elements necessary to the tree, and, besides, much organized matter received into the plant from the atmosphere; soils therefore are gaining instead of

* See Dr. Gray's Botanic Text Book — an admirable work, which every horticulturist should own and study.

losing. If the owner of parks or groves, for neatness' sake, or to obtain leaves for other purposes, gathers the annual harvest of leaves, he will in time take away great quantities of mineral matter, by which the soil ultimately will be impoverished, unless it is restored by manures.

Leaf manure has always been held in high esteem by gardeners. But many regard it as a purely vegetable substance; whereas, it is the best mineral manure that can be applied to the soil. What are called vegetable loams, (not peat soils, made up principally of decomposed roots,) contain large quantities of earthy matter, being mineral-vegetable rather than vegetable soils.

Every gardener should know that the best manure for any plant is the decomposed leaves and substance of its own species. This fact will suggest the proper course with reference to the leaves, tops, vines, haulm, and other vegetable refuse of the garden.

The other fact connected with the leaf, is its function of exhalation. The greatest proportion of crude sap which ascends the trunk, upon reaching the leaf, is given forth again to the atmosphere by means of a particularly beautiful economy. The quantity of moisture produced by a plant is hardly dreamed of by those who have not specially informed themselves. The experiments of Hales have been often quoted. A sunflower, three and a half feet high, presenting a surface of 5.616 square inches exposed to the sun, was found to perspire at the rate of twenty to thirty ounces avoirdupois every twelve hours, or seven times more than a man. A vine, with twelve square feet, exhaled at the rate of five or six ounces a day. A seedling apple-tree, with twelve square feet of foliage, lost nine ounces a day.*

These are experiments upon very small plants. The vast amount of surface presented by a large tree must give off immense quantities of moisture. The practical bearings of this fact of vegetable exhalation are not a few. Wet forest lands, by being cleared of timber, become dry, and streams fed from such sources become almost extinct as civilization encroaches on wild woods. The excessive dampness of crowded gardens is not singular, and still less is it strange that dwellings covered with vines, whose windows are choked with shrubs, and whose roof is overhung with branches of trees, should be intolerably damp; and when the good housewife is scrubbing, scouring, and brushing, and, nevertheless, marvelling that her house is so infested with mould, she hardly suspects that her troubles would be more easily removed by the axe or saw than by all her cloths and brushes. A house should never be closely surrounded with shrubs. A free circulation of air should be maintained all about it, and shade trees so disposed as to leave large openings for the light and sun to enter. The unusual rains of the current season have produced so great a dampness in our residences that no one can fail to have noticed its effect, both on the health of the occupants and upon the beauty and good condition of their household substance.

HENRY W. BEECHER.

— *Western Farmer and Gardener.*

THE GREATNESS OF MAN.

Mankind, viewed collectively, as an assemblage of beings, presents to contemplation an object of astonishing magnitude. It has spread over this wide world, to essay its powers against every obstacle, and every element; and to plant in every region its virtues and its vices. As we pass along the plains, we perceive them marked by the labors, the paths, or

the habitations of man. Proceeding forward across rivers, or through woods, or over mountains, we still find man in possession on the other side. Each valley that opens, and each hill that rises before us, presents a repetition of human abodes, contrivances, and appropriations; for each house, and garden, and field, (in some places almost each tree,) reminds us that there is a person somewhere who is proud to think and say, "This is mine."

All the beautiful and rugged varieties of earth, from the regions of snow to those of the burning sand, have been pervaded by man. If we sail to countries beyond the seas, we find him still, though he may disclaim our language, our manners, and our color. And if we discover lands where he is not, we presently quit them, as if the Creator, too, were a stranger there. Here and there, indeed, a desert retreat is inhabited by an ascetic, whom the solemnity of solitude has drawn thither; or by a felon, whom guilt has driven thither.

While he extends himself thus over the world, behold his collective grandeur. It appears prominent in great cities, built up by his own hands; it is seen in structures that look like temples erected to time, which promise by their strength to await the latest years of his continuance with men; and seem to plead by their magnificence against the decree which dooms them to perish when he shall abandon them; it is seen in wide empires, and in armies, which may be called the talons of imperial power—to give security to happiness where that power is just, but for cruel ravage where it is tyrannical; it is displayed in fleets; in engines, which operate as if informed with a portion of the actuating power of his own mind; in the various productions of beauty, the discoveries of science, in subjected elements, and a cultivated globe. The sentiment with which we contemplate this scene is greatly augmented when imagination bears her flaming torch into the enormous shade which overspreads the past, and passes over the whole succession of human existence, with all its attendant prodigies. When we have made the addition for futurity, of supposing the human race extensively enlightened, and apprized of their dignity and power, and combined in a far stricter union, till the vast ocean of mind prevail over all its accustomed boundaries, and sweep away many of the evils which oppress the world—we may pause a while and indulge our amazement. Such an aggregate view of the multitude, achievements, and powers of man, is grand. It has the air of a general and endless triumph.— *Life and Thoughts of John Foster.*

CHINESE HEMP.

French agriculture has recently been enriched by a very important new production. This precious article is the Chinese hemp, the *La ma cor chorus*, the seeds of which were imported into France by M. Stier, a member of the French embassy in China, and has been cultivated and naturalized at Marseilles by M. Garnier Savatier. This hemp, the reproduction of which is now secured by the seeds, which have ripened in the best possible manner, grows to a height of twenty-four to twenty-five feet; the stalk is from five to six inches in circumference; each plant produces from two to three kilograms of seed, and furnishes thread enough to make a yard of superb lawn, superior in beauty and quality to any obtained from French materials. The cultivation of this plant in the south of France will be the more precious to the country, as a climate of the temperature of that region is necessary for its fructification, and its seeds will find a ready sale in other countries where the seeds will not ripen, but where the filaments may be produced. The South will

* Lindley's Horticulture, p. 42 and 44. Gray's Botany, p. 131.

thus have a double advantage. Some specimens of this plant were exhibited at the Agricultural Show at Montpelier. The height of it was from twenty to twenty-two feet. — *Farmer and Mechanic.*

MORTALITY AMONG THE HORSES.

MR. P.: The sake of humanity prompts me to send you the following observations. Over a dozen of horses died last week in our streets from what is generally termed *sun-strike*. The fact is, that the inhuman owners or drivers expect their horses to go as far and as fast at this, as at other seasons of the year. The spirit of the noble animal will not permit him to give up until he is exhausted; the heat is no doubt the cause, but how erroneous is the treatment to restore them! The first thing is, to plunge a knife into the palate of the mouth or the partition of the nostrils. Here is a double error: they imagine by that means they deprive the brain of blood! No such thing; in the palate, he mostly draws arterial blood which is going to the parts for support; in the nose, they only abstract the venous blood of the face. The great error is, they aggravate the disease by "taking away even that which is left."

The proper and simple means under such circumstances, (and which every coachman and stage-driver ought to be made acquainted with,) would be, to get a little gin or brandy, and add double the quantity of water to it, and give a spoonful every five minutes, until reaction takes place, when the animal will be, in nine cases out of ten, restored and able to walk to his stable in less than an hour. By pursuing the other course, nine cases out of ten die, and, for the information of parties that advocate the bleeding, I must tell them, that if ever it should be deemed necessary to deprive the brain of blood, they must tie up the carotid or vertebral arteries; and the only channels conveying blood from the brain are the jugular veins.

CHARLES WILLIS, *Veterinary Surgeon.*
— *N. Y. Spirit of the Times.*

TALL GRASS. — Mr. Nathan Pendergrass, of Randolph, has left at our office a specimen of herdsgrass, six feet and six inches long, from seed sowed last November, which barely came out of the ground before cold weather. Last winter was a season of regular cold weather. In winters of very changeable weather, grass that has just started late in fall, is very liable to be winterkilled.

THE DROUGHT is very severe (July 30) in most parts of New England, particularly in Maine and in the middle and northern parts of New Hampshire and Vermont. It is quite severe here, but less so than it is a considerable distance east and north. In this region the crop of hay is middling. In sections where the drought is most severe, there will be about half as much hay as there was last year.

OHIO STATE FAIR, which was intended to be held at Cincinnati, early in September, is postponed till next year on account of the prevalence of the cholera in that city.

A HORSE KILLED BY BEES. — In Chillicothe, Ohio, a horse was feeding quietly, when bees suddenly sallied forth from their hives, in an adjoining lot, and assailed him at every point, and the poor beast died in less than three hours.

OLD FRIENDS TOGETHER.

BY CHARLES SWAIN, ESQ.

O, time is sweet when roses meet,
With spring's sweet breath around them;
And sweet the cost, when hearts are lost,
If those we love have found them;
And sweet the mind that still can find
A star in darkest weather;
But nought can be so sweet to see,
As old friends met together!

Those days of old, when youth was bold,
And time stole wings to speed it,
And youth ne'er knew how fast time flew,
Or, knowing, did not heed it!
Though gray each brow that meets us now, —
For age brings wintry weather, —
Yet nought can be so sweet to see,
As those old friends together!

The few long known, whom years have shown,
With hearts that friendship blesses;
A hand to cheer, perchance a tear,
To soothe a friend's distresses;
Who helped and tried, still side by side,
A friend to face hard weather;
O, thus may we yet joys to see,
And meet old friends together.

THE OLIO.

"HEAR, HEAR!" — The celebrated Richard Brinsley Sheridan was very much annoyed on one occasion, in the House of Commons, by a member continually interrupting him by shouting, "Hear, hear!" In course of the debate, Sheridan took occasion to allude to a political contemporary, whom he described as one who wished to play the rogue, but only had sense enough to play the fool. "Where," exclaimed Sheridan, — placing great emphasis on the word *where*, — "shall we find a more foolish knave, or a more knavish fool, than this?" "Hear, hear," was instantly bellowed by the member in question. Sheridan instantly turned round, and bowed to the gentleman, thanking him for his prompt reply to his question, and sat down amid convulsions of laughter from all but the unfortunate member.

AN EYE TO BUSINESS. — A temperance lecturer in England, a short time ago, finished his discourse thus: "And, finally, my hearers, why should any of you drink ardent spirits? My son Thomas, just round the corner, has got as good root beer as any in the country, at only sixpence a quart."

"I was charmed," says Lord Oxford, "with the answer of a poor man in Bedlam, who was insulted by an apprentice, because he would not tell him *why* he was confined. The unhappy creature at last said, 'Because God Almighty deprived me of a blessing which you never had.'"

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, AUGUST 18, 1849.

NO. 18.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

JAUFFRET AND BOMMER MANURE.

In 1835, Jauffret, of France, after making numerous experiments in preparing manure, and having perfected his plan, took out a patent, which expired in 1840. The object of this system was to produce a rapid decomposition, whereby coarse vegetable substances might be readily prepared as manure.

Jauffret's plan was to form a tank or reservoir for water, saturated with decomposing animal or vegetable substances, which may be found on almost every farm. This may be composed in part of drainings from the barn-yard, soap-suds, sink water, urine, &c.

A ley is then prepared in a vessel, or small tank or pit. In preparing this ley, it is better to take the drainings from a former heap, or for the first time take liquor from the reservoir, or soap-suds, sink water, and other liquids rich with vegetable or animal matter.

To decompose one thousand pounds of dry, vegetable substances, or twice that weight of green materials, add to the liquor in the vessel, or small tank,

200	pounds of	night soil, or twice that quantity of horse, cattle, sheep or swine manure,
50	"	" wood soot,
50	"	" unleached ashes,
200	"	" plaster,
30	"	" quick lime,
1	"	" common salt,
1	"	" saltpetre.

These ingredients may be varied; and it would be an improvement to increase the quantity of quick lime and ashes, and reduce that of plaster. If these materials cannot be conveniently obtained, others may be substituted. For the soot, use a larger quantity of the burnt earth of coal-pits. For plaster, use a larger quantity of street manure, slime from ditches, or other similar manure. For ashes, use five or six pounds of potash or soda. Stir the liquor on adding the plaster, and throw in a little at a time, lest it cake.

The materials for manure are thrown into the reservoir and soaked in the liquor, to prepare them for decomposition. Then they are thrown into a heap, by the side of the reservoir; a place for which should

be prepared by laying at the bottom clay, or compact earth, so that the drainings from the heap, and the ley poured on the pile, may run off into the vat, and not be absorbed by the earth, as it would be on a porous soil.

The heap may be made six or seven feet high, six, eight, or ten feet wide, in order to hold the heat, and of any convenient length. In making the heap, after making layers of about a foot, turn on some of the ley, that it may be applied to every part of the materials. When the heap is completed, turn the muddy sediment of the ley on to the heap. Then cover the top of the heap with straw, old planks, or branches of herbage. In forming the heap, it should be trodden down to make it close, and it should be beaten all round for the same purpose.

The fermentation usually commences in two days, and on the third day, the top of the heap is to be opened about six inches deep, the sediment turned over, and another good drenching of the ley applied, and the heap covered up. About the seventh day, make many holes in the heap, about three feet deep, and give another good drenching with the ley. About the ninth day, apply another drenching, in new and deeper holes.

After fourteen or fifteen days from the making of the heap, the manure will be fit to spread. The fermentation is checked by an excessive drenching, or by opening the heap. The drainings should be caught and used over and over again, and what remains is used for future heaps. Warm weather is most suitable for making this manure. This is the substance of Jauffret's mode. For sake of brevity, we have omitted many things in the specification, that are not essential.

Hon. H. L. Ellsworth, formerly commissioner of patents, stated in the Albany Cultivator, November 3, 1843, that in May, 1843, Mr. Bommer presented an application for a patent for making manure, which was duly examined, and rejected for want of novelty, and the application was withdrawn; that in June Messrs. Baer & Gouliart obtained a patent for an alleged improvement on the method of making manure, patented in France by Jauffret, which said method has not been patented in the United States,

and is, therefore, free to the public. These gentlemen sold the patent for the Eastern States to Mr. Bommer, and the mode of making the manure is called the *Bommer method*.

We have private information that after the rejection of Bommer's application, during the presence of Mr. Ellsworth, Baer & Gouliart made their application, and got a patent, during his absence. One fact should be noted here — that this was hurried through the patent office much more rapidly than patents generally are, probably to consummate the business before the commissioner's return; and the whole transaction, when we have shown the claim of the patentees, shows something wrong at the patent office — that there was a want of fidelity or intelligence, by which farmers have been most egregiously duped.

Baer & Gouliart, in their specification, pretend to describe Jauffret's patent mode, in order to show what are their improvements upon it; and in their specification, they declare it to be a full and exact description; yet they have cautiously omitted the important fact that Jauffret, after steeping the materials in the vat, piled them into a heap, and poured the ley on them, as we have already shown. Then they set up the following claim: —

“What we claim as our improvement on Jauffret's method of forming manure by the rapid fermentation of vegetable fibres, is, first, the forming of the said vegetable matter into piles or heaps, without its first being immersed in the prepared ley, and the subsequently saturating the same by pouring on the ley in the manner set forth.”

Now we ask every man of common sense if they have any claim. They claim what Jauffret claimed in his specification. All that is new in their mode is the omission of first steeping the materials in a vat; and if this gives any claim to a patent, then any patentee who claims any thing that is not essential, in his patent, may have his right taken from him by another, who claims his invention, excepting a part which is not important. But having stated the facts, the case is so clear, in our opinion, that further comment is unnecessary.

Farmers, as well as other professions, should keep themselves properly informed of important matters pertaining to their interests. We are astonished that they should be so much imposed upon, as to pay many thousand dollars for an old mode of making manure, to which they have as good a right, without paying five dollars each, or eighty dollars to a town, as any man has to pile up a heap of weeds and turn soap-suds on them. This is our opinion, and though in the legal line, we charge nothing extra.

In closing this article, we would remark that this is not the only case in which farmers have been deceived by patents being granted for what was already public property; one case of which we showed some years ago in the *Yankee Farmer*. A great many patents are granted that have no legal validity; but the patent serves as a passport of deception to speculators, who are making money by selling rights to the incautious. We may again refer to the granting of patents on fictitious claims.

We have been thus lengthy and particular, as we have had several requests to publish what information we had on this subject. We wish for the reader to bear in mind that we say nothing, here, for or against the utility of making manure in this way.

THE CROPS IN NEW ENGLAND.

HAY. — In Massachusetts, the crop is very good, and it has been secured in most excellent condition. There is much old hay on hand. From what we have heard from Connecticut and Rhode Island, it is nearly the same there. In some parts of Maine, the hay crop is good; in others, it is rather light, but better than was expected before haying. Much old hay on hand in some sections. In the northern part of New Hampshire and Vermont, the drought continued longer than in other sections; and as the grass crop was later farther north, the crop will be light. As many are trying to save all the fodder they can, and economizing in its use, and the crop is well secured and will spend well, it is thought that there will be a pretty good supply.

CORN is generally very promising. The hot weather has brought it forward rapidly, and if the latter part of the season should be favorable, the crops will be good. On very dry soil, where the drought has been severe, the crop will be rather light.

POTATOES were generally planted early in the southern and middle sections of New England, and nearly got their growth before the late rains, and they will be very light. Those planted late are very promising. In the northern section, they were planted later, but in some parts of that region, the drought has been so long and severe, that the crops will be light. More potatoes were planted in this state than usual; in Maine, not so many, owing to light crops there last year. The crop will probably be lighter than it has been for many years.

SMALL GRAINS. — Wheat varies from very good in some sections to very light in others. Rye generally good. Oats and barley vary much in different places. In some parts, the crop is very light by reason of the drought.

FRUIT. — There has been about half a usual crop of strawberries. Not more than a third of a crop of cherries. Gooseberries and currants have been pretty good. There will not be a quarter of a usual crop of pears, perhaps not more than a sixth or tenth part so many as usual. Plums are very scarce. No peaches on low lands, nor on flat lands of moderate elevation. On high lands, in some sections, the crop will be tolerably good. The crop of apples will be very light indeed, probably not more than one fourth or sixth as many as last year, confirming our views, as to large crops in even years, and light ones in odd years, generally.

SOAP-SUDS. — Don't waste your soap-suds, but apply it to your rose-bushes and grape-vines. There is no application in the world equal to it. Indeed, vines generally are beautified by it.

UNRIPE AND DISEASED FRUIT.

At this season of the year, when the summer complaint in children is very common, and the dysentery and cholera morbus, and fevers of various type, are prevalent, and that dreadful scourge, the cholera, is spreading over the country with fearful effects, there should be great caution in the use of food and luxuries, as improper indulgences are causes in some cases, and predisposing causes in all cases, of these diseases.

Unripe or diseased fruit is hard to digest, and a most prolific cause of diseases. Yet good, well-ripened fruit is one of the most healthful, if not the most wholesome of all articles of food, and as a luxury, in moderation, it is conducive to health. But children are so fond of fruit that they will eat it when perfectly green; and our markets abound with prematurely ripened fruit, which was picked green, that it might ripen while on its way to a distant market, and much of it is in a state of decay before it is in the hands of the consumer. Nearly all the peaches that have been in this market (Aug. 12) are from trees affected with the *yellow*s, a disease more fatal to the peach than the cholera to the human race.

Sickly trees being unable to perfect their crop, the fruit ripens prematurely, in some cases a month earlier than that of healthy trees; and this fruit has a livid, purplish color throughout, showing clearly that it is from diseased trees. We leave it with the reader to judge whether fruit not coming to full maturity and perfection, and discolored with such positive marks of defection, is fit to be eaten. If meat, exposed for sale in the market becomes tainted, the "market police" orders it sent off immediately; but fruit, with evident marks of taint, and which is more unwholesome than tainted meat, is allowed a place, and is consumed by the incautious to their destruction.

Why do not health officers do their duty as faithful and intelligent guardians of the public, and not show so much partiality to vegetable over animal productions? Reader, as you value life and health, avoid diseased and unripe fruit. Parents, carefully guard your children against its use, as they are often inclined to use it even to excess. A little care and judicious management may save a fit of sickness and a doctor's bill, or save the lives of those whom you value as your existence.

WHEAT CROP AND CULTURE — BEST VARIETIES.

Under this head we find the following article in the Ohio Cultivator, and we would call the attention of farmers in New England to the important fact that the rust and grain worm injures wheat in Ohio, as well as in this section, and to another fact that is worthy of consideration, which is, that the average wheat crop in Ohio does not exceed twelve bushels to the acre. Then why, with these disadvantages of blight and depredations, and lean crops, generally,

should farmers in Ohio raise wheat for farmers in New England, or even a supply for our large markets?

"The recent failure of our wheat crop by rust and insects, has afforded opportunity to observing farmers for gaining much valuable knowledge in reference to wheat growing; and we trust this knowledge will be made generally available for the purpose of introducing such improvements as will tend to lessen the chances for similar failures hereafter.

"In almost every neighborhood, some wheat fields measurably escaped both insects and rust. Now, we want to urge upon our readers the importance of their carefully noting all the particulars in reference to such fields — especially the nature and condition of the soil, its elevation and exposure, the mode of tillage, time and manner of sowing, and last, but not least, the variety or kind of wheat. These and any other facts that may tend to throw light on this subject, if carefully and extensively observed and published, cannot fail to prove of immense public advantage. We hope, therefore, that quite a number of our intelligent and patriotic correspondents will promptly favor us with communications, giving the results of their observations on these points. Remember it is the simple *facts* we desire, rather than *opinions*, or *theories* based thereon.

"We have already received several communications of this kind, which we intend to use along with many others expected in our next.

"In reference to varieties of wheat, we would state, that in nearly all parts of the country, it appears that the Mediterranean has done the best. Perhaps, however, other early kinds, as the Alabama, Virginia, &c., have done as well under similar circumstances; and these we believe are considered of better quality for market than the Mediterranean. We ask further information on this point. We also suggest to farmers, that it is not in the least probable, that we shall often experience so disastrous a wheat season as the present one, and in districts where the crop has seldom before been injured by the rust, it may not be advisable to abandon the well-tryed and hitherto most profitable kinds.

"Colonel Medary, of this city, it is generally known, cultivates several early varieties of wheat. One of these, called by him the *reed straw*, has, for two or three years past, ripened earlier than any other within our knowledge; and many other farmers have procured it for seed. This year, although quite early, Colonel M. informs us, the berry is not quite as good as usual, being slightly injured by rust; and another early variety, called *Missouri*, a bearded variety with brown chaff and berry — has turned out better than any other with him. Both these varieties are a little earlier than the Mediterranean, and of better quality for market or for flour. He offers to furnish either kind for seed, to those who desire, at \$1.25 to \$1.50 per bushel."

TEST FOR GOOD LIMESTONE.

The best lime for agricultural purposes is that which is lightest, whitest, and softest to the touch; the purest and strongest lime is always found the lightest. If, then, by calcination, limestone loses much of its weight by the process; if the limeshells are extremely light, and require, for slaking them fully, a large portion of water; if they are a considerable time before they begin to fall; if, during the process of burning, the limestone is not disposed to run or become vitrified; if it increases very much in bulk by slaking, and the lime is of a pure white, and fine and light to the touch, it may be set down as very good, and should be used in preference to other lime not possessing the same qualities. — *English Paper.*

For the New England Farmer.

PEARS ON APPLE STOCKS.

MR. COLE: You say, in your Fruit Book, that the Seckel pear does better on the apple than other kinds. Every body says that it is harder to grow on its own roots, particularly from the ground, than most other varieties; but how much better it will do on apple stocks, or whether it will succeed sufficiently well to justify nurserymen in budding it on the apple, is a question which I should like to have answered by you, or some one who has fairly tried the experiment. If it will produce more, or even as much fruit, and of larger size, and at the same time grow enough faster to overbalance any defect to which the tree or quality of the fruit may be subjected, then it may perhaps be grown on the apple to advantage.

The great and principal objection to the Seckel pear is small size and slow growth with common culture. Now, if this objection can be removed by being grown on the apple, without essentially injuring the quality of the fruit, or health of the tree, I think it ought to be known by all who are engaged in the culture of fruit; but if not, I hope none will be disappointed in attempting thus to cultivate the Seckel pear. But I leave the subject with you, wishing you to take such notice of the above as you may think proper.

Yours respectfully,
E. F. RICHARDSON.

MEDWAY, July 23, 1849.

EDITORIAL REMARKS. — Generally the Seckel pear on the apple stock yields fruit considerably larger than its usual size, but the quality is inferior. We do not think that this, or any other variety of pear, can be cultivated on the apple, as a matter of utility, but only for curiosity, or as a matter of experiment in illustrating the principles of botanical science. One important fact learned from such experiments is, that the stock affects the fruit of the scion. We have a scion of the Vicar of Winkfield pear that has been growing five or six years on an apple-tree. The fruit is always hard, and never ripens. Whether this is owing to the stock, or other cause, we cannot tell.

For the New England Farmer.

PEAR-TREE BLIGHT.

FRIEND COLE: Although of limited experience and slight observation, as regards the propagation of fruit trees, and the cultivation and raising of fruit, and particularly the pear, yet I offer a word respecting the latter.

I have seen, read, and heard something about the blight in the pear-tree; but whether the cause thereof has been traced out and settled, I know not.

There may be a series of concurrent causes, the resultant of which is the destruction of the tree.

I lately cut a twig from a young pear-tree, the leaves of which were dark and dead; and on examining it closely, I found, among the dead and dying leaves, a swarm of small worms invested in a very attenuated web. It was the extreme end of a limb, and but a few leaves on it; yet it contained hundreds of the little destroying insects or worms — the head black, the body regular, semi-transparent, and of a yellow color, being about three sixteenths of an inch in length, and of squirming activity, in the rain. They destroy the fine green part of the leaf, which leaves it lifeless.

Whether the operations of the minute grub have

any thing to do towards producing blight or disease, I know not, any further than that the destruction in the above instance was complete as far as it went. It is the first thing of the kind that has come under my observation. Although of small account, and perhaps a solitary instance, yet sad results may be, and often are, attributable to minute and apparently insignificant agents.

J.

EDITORIAL REMARKS — In a great many cases, it is difficult to determine whether insects are a cause or consequence of disease. There are various kinds of insects that destroy the foliage of pear and other fruit trees. But the blight, as generally found in pear-trees is not caused by insects, in our opinion, but by great heat. Like the potato rot, it is too sudden and extensive to be the work of insects, and they cannot be discovered in their operations.

We have had seedling pears of the first year's growth blighted early in the season, on hot, dry soil; while near by, in a moist, cool soil, they were vigorous. The seed was the same, and the manuring and cultivating of the two lots were similar.

High culture of the pear-tree, producing a rapid growth, predisposes it to blight; hence the prevalence of this disease in the fertile regions of the west, and its more common occurrence in those varieties that are great growers.

For the New England Farmer.

COTTAGES.

MR. EDITOR: I was pleased to notice, in the number of June 23, a representation of a cottage. The economy and convenience of buildings are subjects well deserving a place in your valuable paper, and I therefore bespeak for them further notice from you and your correspondents.

A mistake made in the erection of buildings is one that cannot be repaired without loss. Order, and neatness also, tend much to make home pleasant, and have an improving effect upon the whole nature of man. Now, it cannot be doubted but what, if we consider the plan of the building only, not counting closeness of trade, that some men will obtain as much for eight hundred dollars as another will for one thousand dollars. If these things be so, then any course which will give the best plans to those who may wish to build, is an object worth obtaining.

As you placed the cottage referred to in a farmer's paper, I infer that you meant it for a farmer's cottage; but I think a different plan in some particulars would suit my ideas a little better. I would not, however, find fault, for I was pleased that you gave it; but I would suggest that a sleeping apartment upon the floor of the house is a great comfort and convenience. And does not convenience also demand that the pantry should join the kitchen? An approximate estimate of the cost would be interesting, if stated. I will write no more for the present, but remain yours for

ECONOMY AND NEATNESS.

Aug. 1849.

EDITORIAL REMARKS. — In giving the design for a cottage, referred to by our correspondent, our object was to give a general plan and style of building, which might be modified to suit the taste of the owner. In order to have a sleeping room below, an addition might be made, in the rear of the main building, for a kitchen communicating directly with

the pantry, which would allow of a bed room where the kitchen is now located.

There is not sufficient attention given to building, considering the importance of the subject. Buildings are very expensive, and in their erection we desire to combine several important advantages, such as economy and durability in building, convenience, pleasantness, ventilation, good taste, economy in fuel, &c. &c.; and in many cases some of these important advantages are sacrificed. As this subject claims the particular attention of our correspondent, we shall be happy to hear from him again.

For the New England Farmer.

DESTROYING BRAKES.

MR. EDITOR: AS I have lately come into possession of a farm which is much infested with brakes, and as I am ignorant of any practicable way of destroying them on lands which we cannot plough and cultivate, I should be greatly obliged, if you, or any of your contributors, will inform me, through your paper, of any method of ridding our pastures of these intruders. Such information, if it can be furnished, would be very gratefully received by the subscriber, and many other readers of the *New England Farmer*.

HORACE CARPENTER.

WORCESTER, VT., July 1, 1849.

REPLY. — The most effectual method of destroying brakes is to plough, cultivate thoroughly, and raise other crops. If we cannot plough, then we must come as near this system as possible. If the land is wet and cold, haul on gravel, sand, or loam, and manure and sow to grass. By putting the land into condition for good crops of grass, the brakes will be measurably subdued. By ploughing, and thorough tillage, and cropping, they may be wholly destroyed.

For the New England Farmer.

PROFITS OF PATENT RIGHTS AND PAPERS.

MR. EDITOR: I noticed in the *Farmer* of June 9, an article headed "Bommer Manure." Having bought a patent right, I feel interested to know all that can be brought against it. Please let us know if you have actually made manure by the rules laid down in the right, or whether you guess at it. Guess work will not do for the farmer; his should be actual experience. I have yet to hear for the first time from the lips or pen of an individual who has bought a right and proved it a failure.

I earnestly desire you to give us your opinion on this matter, founded on facts, and draw the attention of contributors to this subject.

In closing up, you say, "We should think that the amount that has been taken from farmers for this fictitious right, which any one might have had by paying the subscription of a paper for one year, is not less than twelve or fourteen thousand dollars." Now let us balance accounts: The cost of the *Ploughman*, to say nothing of the postage, for one year, is two dollars. Bommer's Patent for the town of Needham, comprising two hundred farmers, cost eighty dollars which is forty cents to each individual right, leaving a balance in favor of the right of one dollar and sixty cents.

Brother farmers, let us look at this subject without partiality to either side, weigh facts honestly, and at the close of our talk, compare notes, know the

truth, and so move on harmoniously together, and at the end reap an abundant harvest. Which is the wish of

R. M.

WEST NEEDHAM, July 4, 1849.

P. S. I refer to the *Ploughman* because it was the only paper that, to my knowledge, called the farmers' attention to this subject; and when I bought my right the *N. E. Farmer* had no existence.

R. M.

EDITORIAL REMARKS. — Our correspondent mistakes the object of our article on "Bommer Manure." We have said nothing against it. Our remarks were merely against the validity of the patent right, and a caution to farmers not to pay their money for nought. As to guess work, which R. M. condemns with so much severity, it is of great importance, especially to Yankees, who are constantly experimenting and inventing as a matter of guess work; hence the enterprise and improvement that every where prevail. Let a farmer guess that he cannot advance in his profession, and the question is settled. But let him guess that he can improve, and he will be sure to do it. The guessing of Yankees, for which they are distinguished, has performed wonders, and the whole world is feeling the effects of it.

We have not tried Bommer's system of making manure, nor have we any occasion to try it; for every material, animal, vegetable, mineral, or earthy, that we can collect, can be prepared in compost, and in due time fitted to apply to the land, without the extra expense and labor of making it by Bommer's system. A little foresight will enable the cultivator to have every kind of manure properly prepared and decomposed by the common system of composting.

As our opinion of Bommer's system has been asked, we will give it; and this we have already done, in a measure. A farmer who exercises a common share of foresight will always have his manure ready for use with less expense than by Bommer's method. Rarely a case may occur in which he suddenly wants a quantity of manure which he has not, and he may suddenly come into possession, or have an opportunity to acquire coarse materials which may be readily decomposed by Bommer's system. But a coincidence arising from two incidents of this kind is very rare with a regular, prudent farmer; yet it may occur. But in that case we would not pay four dollars, nor forty cents, for an old patent that had expired in France several years ago, and even before its expiration was not available to any individual in this country.

As to our remark about a person learning Bommer's method by paying the subscription of a paper one year, we wished to show that if a farmer was in the receipt of a journal devoted to his interest, he would be advised of current events pertaining to his profession. An account of making manure by the French mode would be a very small part of the information furnished, or this might be obtained in a single number, at an expense of only six cents; so let us square accounts on this item. — See page 271.

A change of fortune hurts a wise man no more than a change in the moon.

THE WHEAT MIDGE.

John Johnston, Esq., of Seneca county, one of our best farmers, writes, June 25th, —

"The weevil (wheat midge) has made its appearance among our wheat crops, more especially in the east and north of our county, immediately in this neighborhood. I think there will be no serious loss this season."

The following account of the Wheat Midge, taken from the North British Agriculturist, received from J. Hall Maxwell, Secretary Highland and Agricultural Society of Scotland, will be doubtless interesting to farmers:—

"In examining the ears in an early field, some yellow maggots were found. This led to the conclusion that some fly or other had deposited its eggs within the glume, where the maggots were discovered; and by examining the ears with a microscope, numbers of apparently new laid-eggs were discovered in clusters near the embryo grain. This, of course, led to further research; and on a later field of spring-sown wheat, just as the one side of the ear had opened the sheath, we observed, as was anticipated, as many as twelve or fourteen midges on the exposed part of each ear, busily employed in depositing their eggs within the glume, which, we remarked, were glued to the inside of the glume by a gummy substance, exuded at the same time with the eggs. One of our party remarked that he had seen the same fly deposit eggs in the same way on a panicle of grass; on examining which, we found it to be the common couch grass, the *triticum repens* of Linnæus, showing that the Swede was a more correct botanist than those of modern times, who have assigned it another genus than that of *triticum* or wheat. We have not heard that it has been ever observed to deposit eggs on any other grass. Having so far found out the cause of what went under the convenient name of the 'blight in wheat,' we applied to Kirby and Spence, who had previously written concerning this little gnat, and who knew it by the name of *tipula tritice*, but who still left us in ignorance as to its winter quarters.

"Our attention was directed to find out any thing we could about its transformation; and we placed some ears in a glass runner, with the stalks inserted an inch in sand, through a paper perforated with holes, to let the stalks downwards into the sand. This paper covering was intended to let us observe more easily when the larvæ left the ear. About three weeks thereafter, on examining wheat ears in the field, we found many of them quite empty of the larvæ, and the embryo grain quite dead where the larvæ had been. We then examined the ears in the runner, and found them also empty, without any appearing on the paper below; on lifting of which carefully, we found the larvæ had descended, and found their way down through the perforations made for the wheat stalks, now in the dormant pupa state, of a semi-circular shape and copper color. This led to further observations in such fields as had been somewhat later; when it was observed that the outer parts of the glume were inhabited by small black beetles in great numbers; and we found, as soon as the larva escaped from the glume, the beetle, led apparently by the smell, moved about with rapidity, making much use of its feelers; and whenever a feeler touched the larva, it instantly darted an egg into its body, making it the *nidus* of its future progeny. This beetle is called by the naturalists *ceraphron destructor*, and seems one of those means by which the wise and beneficent Ruler of all things gives a check to creatures that might otherwise prove seriously hurtful. Such investigations, to which farmers were led, soon made them quite familiar with every thing connected with the habits of the fly. It was found that it

came into the fly state when the mean temperature of the preceding ten days was about fifty-six degrees Fahrenheit. It was also perceived that it was too delicate to be exposed to the sun's rays throughout the day, when it continued among the shady wheat foliage; and it could only lay its eggs in a calm evening, when the temperature was at or about fifty-six degrees, betaking itself to the shelter when the temperature fell to fifty-three or fifty-four degrees; nor could it deposit its eggs except the air was perfectly calm, and its work of mischief, it was found, could only be performed during three days, at the most, of the plants' growth, just as the one side of the ear appeared. Various plans have been devised for preventing its depredations, but hitherto, so far as we know, these have all been ineffectual."

In this state, the varieties of wheat known as the *Mediterranean* and the *Black Sea*, the former a winter, and the latter a spring variety, have more frequently escaped the ravages of the wheat midge than any other, and are now being largely cultivated in those sections of the state where the insect has appeared: It is probably owing to their ripening at a season when the fly is not so prevalent, that they escape, to a great extent, its ravages. The *White Blue Stem*, a winter variety, and a very fine white wheat, is said also to escape the ravages of the fly. It has been cultivated in Maryland considerably, and to some extent in Chatauque county, in this state. — *Selected.*

REMARKS BY EDITOR N. E. FARMER. — The wheat worm has been so destructive in some parts of New England, that the culture of wheat has, occasionally, been almost wholly abandoned. The best preventive is late sowing, so that the midge or fly will have appeared and passed away, before the wheat is in a suitable state for it to operate on this plant. A great evil that sometimes attends late sowing is rust, so that the farmer, in avoiding one evil, runs into another. But with care in selecting those varieties of wheat not liable to rust, — and such there are, — the effects of the worm may be prevented without serious evil, generally, from the rust. This is a very important subject, and we hope that farmers will give more attention in selecting wheat that is generally exempt from rust.

CHEMISTRY IN ITS RELATION TO AGRICULTURE.

Of all sciences, chemistry is that which has the nearest relation to agriculture, and lends to it the greatest aid. It is a science that points out to us means by which we may add to the fertility of the ground through the medium of foreign substances applied to it; but, in the case of chemistry, as in that of all other sciences, a certain degree of caution is necessary in carrying into practice the rules laid down by the theorist, when in his laboratory. Chemistry enables us at once to test the real value of any given substance, without the uncertainty and loss of time attendant on a trial; and when it is considered how much time must have been lost, how unsatisfactory the result must repeatedly have been, when no such knowledge existed to certify the progress of discovery, the value of this science may in some measure be estimated. It is certain that the principles on which vegetables are nourished depend altogether upon chemistry; and agriculture, in its modern and improved state, has led, with considerable precision, to a knowledge of those laws of vegetation by which we are enabled to ameliorate the land, and to increase the quantity as well as improve

the quality of its productions. The farmer who applies a peculiar species of manure, which has been found beneficial to his ground, being himself ignorant of chemistry, only follows the practice of his predecessors or neighbors; but while he sneers at the theorist who would direct his attention to the studies of the first principles of his art, both he and those whom he follows were probably originally indebted for that practice to the observations of men of science. No one who is at all conversant with the subject of manure can be ignorant that, notwithstanding the management of intelligent husbandmen, a great want of knowledge prevails among the common run of farmers regarding the best modes of its preparation and application. I think, if we were to pay a little more attention to the nature and properties of manure before we apply it to the soil, we may in that way sometimes reap great benefit. I think these things ought to be more seriously considered, not only for the benefit we may ourselves derive from it, but also the community. I know not that more cogent arguments for the union of chemistry with agriculture can be adduced than already exist in the stimulus all parties possess for advancing their individual interests; but of this we may feel assured, that as the end and object of all knowledge in connection with this subject is to increase the produce of the earth, so those who will not avail themselves of the assistance chemistry affords will be left behind in the struggle which is going on; and further, those who do rely on the science for an elucidation of the hitherto mysterious operations of nature, will not only derive a direct and immediate benefit from the application of chemistry to agriculture, but they will also proceed with less difficulty, from being assured that the laws of nature are uniform in their operations, and that a certain cause will always induce a certain result. Without a fair trial being given to the opinions of the one or the power of the other, the hints thrown out by the scientific are often overpowered and put down by that concentrated mass of ignorance and prejudice through which the light of science can rarely penetrate. Every year shows us more and more clearly that we must find a surer way of obtaining good crops than our forefathers; we have the foreign grower to contend with, and must now look to science, not leave it to the next generation of farmers, for the aid which practice alone cannot afford us. I do not mean to say a farmer must be a professed chemist and master of analysis; on the contrary, I think it would be useless for him to trouble himself with the sixty-two elementary or simple bodies which the numberless forms of matter, of which the crust of the globe is composed, are capable of being resolved into; but it is necessary every farmer should have a certain amount of information on scientific subjects, more especially with those that point out to him the composition of the various plants he cultivates, and of the manures he carries on his land. Liebig says, in his excellent work on "Chemistry in its Application to Agriculture and Physiology," "Now that the conditions which render the soil productive and capable of affording support to plants are ascertained, it cannot well be denied, that from chemistry alone further progress in agriculture is to be expected."

G. S., A YOUNG FARMER.

— *The Plough, Loom, and Anvil.*

DEVON CATTLE.

Among the improved breeds of cattle in this country, the Devons are held in high estimation, and probably the most generally admired. As a distinct breed of neat cattle, they possess several features peculiar to themselves, of which they are very tena-

cious — retaining them in a great degree, even through their distant crosses with other breeds, and particularly our native stock. The color of pure Devons is always red, varying to a dark mahogany. The dark color is generally most admired, although the light shades are equally profitable. There is occasionally a little white on the belly, which is more common with the heifers than the steers, and the cows' udders are frequently white. The hairs which form the brush of the tail are very remarkable: on calves they are a darker shade than the other parts of the body, but always turn white before the animals are three years old. The hide is thin, soft and mellow to the hand — the hair silky, and frequently curled. The horns are long, fine and smooth, and frequently yellow at the root when young; the muzzle and round the eye yellow, with a bright, keen, and active countenance.

The Devons are fine-boned, clean-limbed, and very active — resembling in cattle what is called blood in horses more than any other stock. They are good feeders, and make as much beef in proportion to the food consumed as any other cattle. Their beef is also of the best quality, being what fleshers call *marbled*, (or well mixed with alternate fat and lean;) and they always prove well when dressed — weighing heavy to their appearance. In size they are about the medium of neat stock. When dressed, the cows weigh from six to eight hundred, and oxen from ten to fifteen hundred pounds, grass fed.

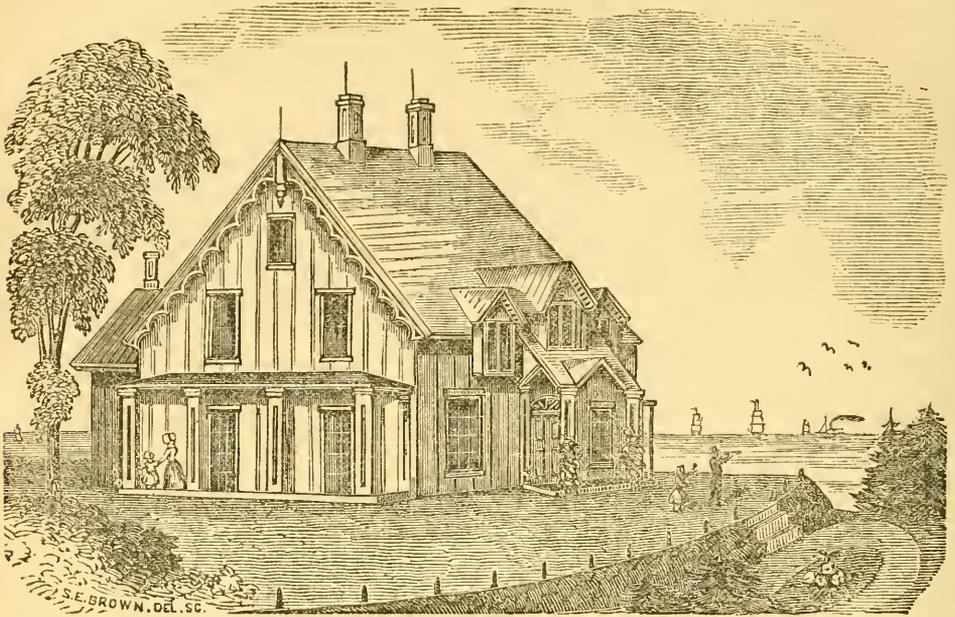
The bulls of this breed are usually inferior in size and beauty to the oxen; but his stock is the best proof of the value of a sire, and not his appearance. For labor the Devons are not excelled by any other breed; and their uniformity of color and build renders them easily matched. They are very active, docile, and tractable, as well as tough and hardy, and when carefully used, will perform much labor from four to eight years of age, without diminishing their size or aptness to fatten.

As milkers, the Devons are similar to our native cows, but the quality of their milk is always rich. On this point, Mr. Allen, author of "Domestic Animals," (published in 1848,) remarks — "The cows invariably yield milk of great richness, and, when appropriately bred, none surpass them for the quantity of butter and cheese it yields. Mr. Bloomfield, the manager of Lord Leicester's estate at Holkham, has, by careful attention, somewhat increased the size, without impairing the beauty of their form; and so successful has he been in developing their milking properties, that his average product of butter from each cow is four pounds per week for the whole year. He has challenged England to milk an equal number of cows of any breed, against forty pure Devons, to be selected out of his own herd, without, as yet, having found a competitor."

We believe the Devons were first introduced into Western New York, about twenty-five years ago, by William Garbutt, Esq., of Wheatland. In 1835 or 1836, Mr. G. stocked his farm in Sheldon (in charge of Mr. Beck, an experienced Scotch farmer) with a portion of his home stock. In 1838 or 1839, Mr. Vernon, of Roanoke, Genesee county, imported a bull and two heifers from the best stock in Devonshire, England. Messrs. Garbutt, Beck, and others bred from the Vernon bull, (now known as the Dibble bull,) and produced many valuable animals. This stock is now scattered over much of Western New York, and some of it in Michigan and Canada; so that purchasers can be accommodated with thoroughbred Devons, not inferior to any, at much less expense and trouble than to import them from England.

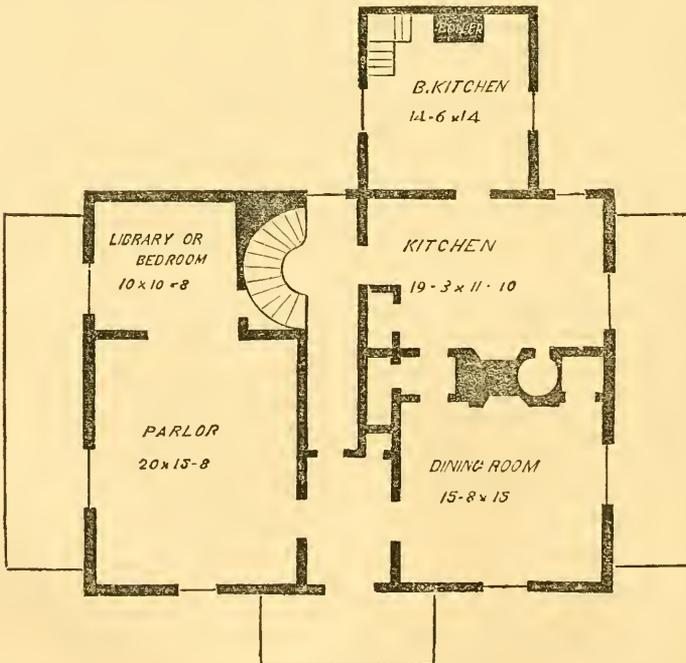
— *Genesee Farmer.*

The earth is said to be 7616 miles in diameter, and 24,880 miles round.



COTTAGE OF A. A. LAWRENCE, ESQ.

AT THE HEAD OF LONG BEACH, LYNN, MASS.



GROUND PLAN.

COTTAGES.

Our engraving represents a beautiful cottage built for a gentleman's summer residence. It is very commodious and convenient, and is handsomely finished outside and in. The walls are made with upright planks and battens, which is a very substantial and durable mode, and for a cottage better in appearance than clapboards. We show the ground plan. The parlor is warmed by a furnace. The room in the rear of the parlor, connected by folding doors, is used for an extension of the parlor, but it may be used as a study or library, or for a bed-room by those who would have a sleeping-room below. From the back kitchen are stairs to the room over it, and under them stairs to the cellar. The dimensions of the building exclusive of the piazzas and portico, are forty-two feet by thirty-two. The wing in the rear is fifteen feet square.

In the second story are four large sleeping-rooms in the main building, and another over the back kitchen, communicating with the hall, affording a passage from the back stairs to all parts of the second and third stories, which many desire. The two windows, in front, communicating with the sleeping-rooms, in this story, extend below the eaves, which renders the rooms more pleasant; and the second story, on this account, does not extend up so far as usual, so that there are two good sized bed-rooms in the attic. In the front of the hall, in the second story, is a dressing-room.

According to the carpenter's estimate, a cottage in this style, externally, finished in a neat and thorough manner, would cost about three thousand dollars, in this vicinity. Where labor and materials are cheaper, it could be built for fifteen hundred to two thousand dollars, according to the style of finish.

In the construction of this cottage, there is great saving of materials and labor, by using planks for the walls of the usual width, varying from eight to fourteen inches. The appearance is the same as though they were of a uniform width, excepting on close inspection; and even then it is no disadvantage to the appearance. In most cases, time and lumber are wasted in reducing the planks or boards to a uniform width.

For a permanent residence, in the interior, or for a farm house, we would suggest several improvements in this plan, and some changes might be made as a matter of economy in building. A chimney could be made between the parlor and the room in the rear, for the convenience of warming both rooms; and by extending the folding doors nearly to the wall, the rear room could be used as a part of the parlor, or, with a narrow door, it might be used for other purposes. With folding doors it could be used for other purposes generally, or for an extension of the parlor.

The dining-room could be used for a sitting-room, the kitchen for a dining-room, and the back kitchen for a kitchen. In this case, the oven and a fireplace should be in the kitchen, in connection with the boiler, which is shown on the plan.

COUNTRY LIFE.

How often do we hear country ladies bewailing their lot, complaining of the monotony of a country life, and envying the destiny of such of their acquaintance as live in the turmoil and excitement of a town! Would our fair readers but explore the rich treasures of rational and pure enjoyment that are so profusely scattered around a country house, they would be more apt to condole with them than envy their sisters of the city. Our object, in these pages, will be to awaken in your minds an interest in the various works of nature, so thickly strown around you; to direct your attention to the birds, which build their nests, and sing their varied songs of love and joy, in every tree, and bush, and shrub; to the flowers, which deck with their thousand hues the sunny bank and the fertile meadows, the parched heath and the rippling brook; and, above all, to teach your thoughts to ascend from the admiration of the creature to the contemplation of the Creator, and in all your observation of the works of nature, "to look through nature up to nature's God."

Each season has its glories and its wonders. First comes Spring. Animated by her genial breath, the whole face of nature changes; that which is now wrapped in the gloom and sleep of winter, will soon awake to renewed life and vigor, and all this will take place at first slowly and gradually. Now, then, is the time to commence your observations, before the multiplicity of objects distracts your attention and bewilders your ideas. You must acquire a habit of observing; not merely of looking and of seeing, but of intimately, narrowly observing; for be assured that an observant Polyphemus, with his solitary eye, obtains far more information in one day than an unobservant Argus, with his hundred eyes, in a whole month. It is surprising how your interests in your daily walks will be increased, when you have gained an insight into the history, the uses, and the various objects which you meet with. No walk, at least no country walk, can be devoid of interest to a mind desirous of acquiring information. You will ever be meeting with something new to excite your admiration, ever falling in with something fresh, to impart instruction and to afford amusement. These country walks will give vigor to the mind, and health to the body; that which before was too frequently looked upon as a toil, will now be regarded as a pleasure; you will often be induced to take exercise in the open air, and the result will be a buoyancy of spirits, and a lightness of heart, and a cheerfulness of temper, which all your poor amusements, and all your previous formal walks had failed to produce. — *Plough, Loom, and Anvil.*

THE NORTHERN SPY APPLE.

The correspondent of the Springfield Republican, writing from Rochester, N. Y., April 24, says, —

The choicest winter apple cultivated in the Genesee Valley is the Northern Spy. It does not ripen so as to be suitable for eating until February; it keeps well till June, and even until the 4th of July. The following remarks are quoted from Richard J. Hand, Esq., of Mendon, situated near Rochester: —

"I have," says he, "grown the Northern Spy apple from fifteen to twenty years. I have on the whole found it a good bearer—fruit extremely fair looking—size good; and with me it yields a better crop than the Swaar. I have kept a few in fine order until the 4th of July. The general crop I can keep till the last of May or first of June. The quality I consider superior to any other apple. I have sold my crops in Rochester; and they have averaged at least one dollar a bushel, for ten years last past;

and I can sell this more readily than any other apple.

"The trees put forth their leaves from ten to fourteen days later than any other apple, and on that account are more secure from late spring frosts. They are fine, smooth-barked, and thrifty-growing trees, making in the orchard a finer looking tree than any other in the vicinity."

This apple is a seedling, and was first produced in an orchard in East Bloomfield, a few miles east of Rochester. The seed was brought from Connecticut about fifty years ago.

The tree, it is said, bears every year: many of the specimens measure twelve inches in circumference. The tree is of upright and of compact growth.

These apples have been selling this winter in market for three dollars a barrel, when other good winter apples were selling for seventy-five cents per barrel. The Spy is remarkable for its freshness, juiciness and delicious flavor.

IMPROVEMENT IN CATTLE AND HORSES.

We copy the following from an article in the Albany Cultivator, by one of the editors, who made a tour of observation in some sections of Vermont.

"CATTLE. — Considerable interest is awakened in several neighborhoods, in regard to the improvement of cattle. A. Chapman, of Middlebury, kept for several years a first-rate Ayrshire bull, from the herd of Mr. Cushing, of Watertown, Mass. We have before spoken of this stock; but it has since been more fully proved for the dairy. Mr. C. has several half blood, and some three quarter blood Ayrshire cows. Some of them are, in points, about all that could be looked for in a dairy cow: and we have reason to believe that their 'looks do not belie them.' Mr. C. informs us, that in fourteen days of June, 1848, four of these cows made eighty and three fourth pounds of butter, besides supplying a family of fourteen persons with milk and cream. One of the four made eleven and three fourth pounds of butter in seven days. The last of September, 1848, three of the above four cows made thirty pounds of butter in seven days, or ten pounds per week each. They are a small-boned, thrifty stock. Mr. C. states that he killed a pair of half blood steers, three years and six months old, fed for two months mostly on sugar beets, — no meal or grain of any kind, — and they weighed a trifle over a thousand pounds each.

"Messrs. Bingham, of Cornwall, have introduced the full blood Herefords, from the late herd of Corning & Sotham, of this city. They look, generally, remarkably well, and prove to be a very valuable stock for this section. Their hardiness adapts them to the climate; they are easily kept, and thrive rapidly on hay or grass. The general characteristics of the Herefords have been stated in our columns. A. L. Bingham has several Durham heifers, purchased of Mr. Rotch, of Otsego county, N. Y., which he is crossing with Hereford bulls.

"Paris Fletcher, of Bridport, has several full blood Durham cows, and several good half bloods. Two of the full bloods have lately been sold to Mr. Henshaw, of Boston. Mr. Chipman, of Shoreham, has some fine cows, — crosses of the Durham breed. A four-year-old cow of his gave, as was stated, twenty-four quarts of milk per day in June.

"Mr. Sanford, of Orwell, has some full blood Devons, and some highly crossed with the Devon. He has a beautiful young bull, purchased of Mr. Atwood, of Connecticut. He was by Mr. Hurbut's bull, Bloomfield; his dam from the herd of Mr. Washbon, of Otsego county, N. Y. The Devons have thus far done well in Mr. S.'s hands, and he is determined to

increase them. We see nothing to hinder their being a useful and profitable stock here.

"Mr. Vanderlip, keeper of the hotel at Manchester, has some Durham cows, from the herd formerly owned by Hon. L. C. Ball, of Hoosick, N. Y.; two of which are great milkers. He has also some handsome cows and heifers from Connecticut, showing much Devon blood, which appear well as dairy cows. There are several bulls and considerable young stock in the neighborhood, mixed more or less with the Ayrshire and Devon blood; and the farmers generally consider an infusion of the blood of these breeds an improvement.

"HORSES. — The introduction of 'Black Hawk,' has made an unquestionable and important improvement in the horse stock of this section. The oldest of his progeny here are four years old, and have been more or less proved. They have generally size enough, and a large proportion of them are superior in form, style, and action. The maximum of their speed has not, of course, been ascertained at this green age; but that they will not be wanting in this respect, might be shown by examples 'too numerous to mention' here. As a specimen, we will refer to the performance of a mare, four years old, owned by J. W. Holcomb, of Ticonderoga, which, as we were credibly informed, trotted in a sleigh, last winter, twenty-six miles in two hours and ten minutes. Those who wish further particulars in regard to the stock, will obtain them by making inquiries in the proper quarter.

"Mr. J. Hill, of Sunderland, has introduced a horse which is a cross of the English draft horse. We had not an opportunity of seeing him; but he was described to us as being six years old, — seventeen hands high, — weight thirteen hundred and eighty pounds. He is said to be well made, and a good traveller. It is thought he will be useful in improving the stock of the neighborhood."

THE BEST MERINOS.

We copy the following proposal from the American Agriculturist. We hope that there will be a large competition for the prize offered, that the peculiar excellences of different flocks of sheep may be known, with a view of improving this highly valuable race of animals.

"A purse of one hundred dollars having been offered for the twenty-five best Merino ewes, and the twenty-five best Merino lambs, under one year old, by a private gentleman, the exhibition to be at the Fair of the New York State Agricultural Society, I purpose to be a competitor in that exhibition, against any and all flocks of Merino sheep that may be brought against me. I give this out, not as a challenge, but simply as a proposition, which shall call forth my brother farmers throughout the length and breadth of the land. My object is to convince myself where the best Merino sheep are. If I have not got them, I must have them; for I am resolved to improve from the best, whatever may be the cost. By a fair and manly competition, we may compare the best specimens from the best flocks, and by that means learn where the best sheep are to be found.

"For a series of years, I have spared no pains and expense to possess myself of the best sheep of the pure Merino race the United States could afford, or to be found in the Old World. It remains to be seen whether these efforts have been successful; and to this end, I earnestly invite the Merino wool-growers, throughout the Union, to meet me on the show ground, at Syracuse, next September, in honorable competition, to compare the twenty-five best ewes, and the same number of lambs from our respective

flocks, and thus add another feature to this somewhat national exhibition, which will be made at the New York State Fair.

A. L. BINGHAM.

CORNWALL, VT., July 16, 1849."

CLAY.

This earth is, as most of your readers are probably well aware, "a compound of silica and alumina." These constituents are not merely mingled together, but chemically combined. In much of the clay found in nature, there is an extra quantity of silica, "which exists in it in the form of sand, of various degrees of fineness." Clay also, in all cases, contains iron "in a higher or lower state of oxidation, and it is probable that this metal constitutes an essential part of it." This, indeed, is now the prevalent view taken of the subject, by those who have most carefully examined it, and there appears but little ground to doubt the correctness of the conclusion. This matter, oxide, is of various colors, and is, indeed, dependent upon the degree of oxidation. It is sometimes red, sometimes black, brown, and yellow. The "black indicates the lowest degree of oxidation, and the red the highest."

As a general thing, the presence of clay, in some quantity, seems to be indispensable to the fertility of soils; and hence I find that light, pulverulent, and sabulous loams are decidedly improved by spreading clay upon them, and mixing it, in a pulverized state, with the superior stratum, or surface soil, and in such quantity as is necessary to insure an increased absorbent power, as well as greater compressibility of the entire stratum which is the medium of vegetable germination and growth. Plains land, which is almost and invariably of a sandy texture, possessed of little productive energy, and too light to be successfully worked, becomes highly fertile when highly ameliorated by liberal applications of clay.

A friend of mine from the east remarks, in reference to the subject of amalgamation, as follows: "When I commenced life, my means were too limited to allow of my purchasing, or even seriously thinking of such a farm as I wished to possess. Compelled by necessity, I therefore 'sat down' on a tract of 'plains land,' which I purchased for two dollars per acre. The growth was mostly pine, and a species of dwarf vegetation, called here 'gray birch,' with a profuse 'erop' of underbrush, composed of fern, whortleberry, and other diminutive shrubs.

"As soon as the soil was broken, I commenced hauling on clay, and have continued the practice constantly ever since. I have now brought most of my farm to a degree of productiveness not surpassed, I presume, by the best loam lands in the state. The last season, I harvested ninety-seven and a half bushels of sound Indian corn from an acre, and from a field adjoining, measuring four acres, I took eight and three fourths tons of English hay — nearly two and a quarter tons per acre. I am still improving these fields by continuing the process of amalgamation — there being not yet clay enough to qualify the sand."

A MONTGOMERY COUNTY FARMER.

July 10, 1849.

— *Germantown Telegraph*.

REMARKS BY EDITOR N. E. FAIRMER.—In New England, there are a great many thousand acres of light lands that are regarded as almost worthless, that might be rendered fertile by the addition of clay and good culture; and clay banks are common near such lands. Yet these lands, for miles and miles in extent, even near good markets, are neglected, while many

farmers have passed by them, gone thirty to one hundred miles farther into the interior, and there till a hard, rugged soil for scanty crops, and pass over these lands of easy culture, on their way to market, with their produce, which has cost as much in its transportation as it would to raise the same produce on these light lands, if placed under judicious management.

HOUSE CISTERNS.

It is frequently the case that farmers and others are so circumstanced as to render a constant and full supply of water impracticable. We have now in our mind's eye a beautiful village, containing a population of some one hundred or more, in which there is but one well! The village in question is located on an eminence, from which the land descends in every direction, and which is surrounded, at its base, with numerous springs and rills of excellent water. The well is about eighty feet deep, and the expense of digging it proved the experiment to be too costly to warrant its repetition; consequently, it is the only well in the place, and the proprietor is remunerating himself for his outlay in digging it, by a regular tax on the neighbors, who use his water, at so much a year. In such situations, the construction of cisterns for the reception of rain water, is the only resource, and when the formation of them is properly conducted, will secure a full supply of the necessary article, for ordinary domestic and household uses, the year round. The cost of a good cistern, sufficiently capacious to hold from one to two hundred hog-heads, need not be great, as a very large proportion of the work can be performed by the hired help during seasons of leisure. One of the greatest inconveniences a farmer can experience, especially in a dry season, is the lack of a sufficient supply of water. The following method of constructing cisterns, of large or small size, is said to be common in many places, and to be the most economical of any yet discovered: The workmen proceed first to dig a hole, of a circular form, and of the desired capacity, at the place where a cistern is wanted, and shape it after the usual fashion of an earthen pot, which shape is deemed best adapted to give strength. Care should be taken to have the sides as smooth and even as possible. The plasterer then comes to give it a coat of mortar, made of hydraulic cement and clean sand, in the proportion of one part of the former to two of the latter, wet with water to a suitable consistency. This is plastered immediately against the sides of the pit, beginning at the bottom and extending upward, and on the horizontal part of the offset to the perpendicular part. If the soil should be sandy, it may occasion some trouble to the plasterer, which an expert workman can readily overcome, and if any part should cave a little, a few broken bricks or stones may be put in to hold up the sand or caving earth, till the first coat is put on, which will soon harden and sustain the earth in its place. When this coat is sufficiently dry, of which the workman can judge, a second must be added, then a third, each about half an inch in thickness. These render the sides perfectly secure against the caving of the earth, forming a powerful stone pot or cistern, which hardens and strengthens for proper use. The roof or caving is lodged upon the offset, and should be made of two inch plank, leaving a suitable hole for drawing the water, or the insertion of a pump. One barrel of cement is sufficient for a cistern holding eighty barrels of water, and more than sufficient where the soil is compact and the sides of the excavation fair and smooth.

AGRICOLA.

LOWER DUBLIN, June 27, 1849.

— *Germantown Telegraph*.

Domestic Department.

DOMESTIC EDUCATION.—The time is coming when domestic duties are expected to be performed upon scientific principles; and we are bound to employ every means in our power to make ourselves acquainted with the sciences pertaining to our domestic affairs. A knowledge of chemistry and dietetics, in a cook, is invaluable to a family. Information regarding the laws of health, and life, and mental philosophy, is absolutely necessary to the proper rearing of children. The suffering I have seen and experienced for want of knowledge, and the almost incredible advantage gained by the application of a few practical ideas, makes me very desirous for others, as well as myself, that we should have "more light."

I think, however, it is not proper that we should always be in performance of the sober duties of life. Nature does not bestow all her care on the sturdy oak and mountain pine, but adorns the landscape with an endless variety of fanciful colors and forms, enlivens the whole with music, and the frolicsome play of animated beings. Nor did she fail to implant in the human mind faculties harmonizing with the beauty, melody, and gayety of external nature, which find a legitimate sphere of action in ornamental horticulture, vocal and instrumental music, &c.—*Genesee Farmer.*

NEW MODE OF PRESERVING BUTTER.—There cannot be a doubt that the cause why butter is difficult to preserve good, is, that some material or ingredient of the milk combines so intimately with the buttery particles, that it is very difficult to separate. It has been said that Mr. E. H. Merryman, of Springfield, Illinois, has discovered that this substance is *casein*, or the cheesy matter, and that he has contrived a mode of separating it by mechanical means, and thus preserves butter a long time if it be exposed to the atmosphere. The Scientific American, remarking upon this subject, says that this separation of casein is done, by the Tartars of the Crimea, by melting the butter over a slow fire and removing the scum as it rises. The butter is kept in a melted state there by means of a water bath at one hundred and eighty degrees, until the caseous matter subsides to the bottom. This is a slow and tedious method, and if Mr. Merryman's method is successful, it must be a very great improvement.—*Maine Farmer.*

IMPROVED METHOD OF PRESERVING MILK, patented by F. H. F. Louis.—The milk is to be mixed with well-clarified raw sugar, four ounces to the gallon. It is then to be evaporated with agitation. When nearly solid, it must be pressed into cakes of suitable size. Steam may be used for the evaporation; or, if time is no object, spontaneous evaporation in very shallow pans, with the fluid not more than one tenth of an inch in depth, or a drying chamber may be used, the temperature not to exceed 122° Fahr. The cakes remain sweet and fresh for a long time, and are soluble in warm water. Another process is, to heat the sweetened milk nearly to the boiling point, and before it becomes cold, to curdle it by rennet or a weak acid. The curd is separated from the whey, and by strong pressure after washing in cold water, it is obtained free from adhering water. The whey is to be evaporated to dryness. The curd, placed over a slow fire, is continually stirred, and the dried whey added very gradually, with a small portion of bi-carbonate of soda. After a while, the ingredients melt and unite. A small quantity of finely

pulverized gum dragon, hastens the solidification. Cream may be preserved by the same methods.—*Chemical Gazette.*

PEELING POTATOES.—Payen, the great French chemist, informs us that starch is not found in the epidermis, or in the tissues immediately subjacent, but that nitrogenized matters principally reside in these parts of the tuber. Hence a loss of the most nutritious portion of the vegetable is incurred by the common practice of peeling off the rind and parts underneath, before the boiling commences. It should also be remembered that cold water dissolves, while boiling coagulates, albumen. If potatoes, therefore, are thrown into cold water, and gradually heated, much of their nitrogenized principles will be extracted before the water reaches ebullition, while if it be made to boil before they are introduced, the coagulation will cause these matters to be retained within the tissue of the vegetable.

Boys' Department.

COUNSELS FOR THE YOUNG.—Never be cast down by trifles. If a spider break his thread twenty times, twenty times will he mend it again. Make up your minds to do a thing, and you will do it. Fear not, if a trouble comes upon you; keep up your spirits, though the day be a dark one.

If the sun is going down, look up to the stars; if the earth is dark, keep your eye on Heaven. With God's presence, and God's promises, a man or a child may be cheerful.

Mind what you run after. Never be content with a bubble that will burst, or firewood that will end in smoke and darkness. Get that which you can keep, and which is worth keeping.

Fight hard against a hasty temper. Anger will come, but resist it strongly. A spark may set a house on fire. A fit of passion may give you cause to mourn all the days of your life. Never revenge an injury.

If you have an enemy, act kindly to him, and make him your friend. You may not win him over at once, but try again. Let one kindness be followed by another, till you have compassed your end. By little and little, great things are completed; and so repeated kindness will soften the heart of stone.

Whatever you do, do it willingly. A boy that is whipped to school never learns his lessons well. A man that is compelled to work, cares not how badly it is performed. He that pulls off his coat cheerfully, strips up his sleeves in earnest, and sings while he works, is the man for me.

Evil thoughts are worse enemies than lions and tigers; for we can keep out of the way of wild beasts, but bad thoughts win their way every where. The cup that is full will hold no more; keep your heads and hearts full of good thoughts, that bad thoughts may find no room to enter.—*Am. Cabinet.*

EMBLEMATIC PROPERTIES OF FLOWERS.—The fair lily is an image of holy innocence; the purpled rose is a figure of heartfelt love; faith is represented in the blue passion-flower; hope beams forth from the evergreen; peace from the olive branch; immortality from the immortelle; the cares of life are represented by the rosemary; the victory of the spirit by the palm; modesty by the blue fragrant violet; compassion by the peony; friendship by the ivy; tenderness by the myrtle; affectionate reminiscence by the forget-me-not; German honesty and fidelity

by the oak-leaf; unassumingness by the corn-flower (the cyane;) and the attriculas, "how kindly they look upon us with their child-like eyes!" Even the dispositions of the human soul are expressed by flowers. Thus silent grief is portrayed by the weeping willow; sadness by the angelica; shuddering by the aspen; melancholy by the cypress; desire of meeting again by the starwort; the night-smelling rocket is a figure of life, as it stands on the frontiers between light and darkness. Thus Nature, by these flowers, seems to betoken her lovely sympathy with us; and whom hath she not often more consoled than heartless and voiceless men were able to do?

Health.

INFLUENCE OF CUTTING THE HAIR. — Medical men are occasionally asked whether it is proper to cut the patient's hair; whether, in fact, this operation has any influence upon the health. M. Frederique resolves the question by giving the following illustration: —

A little girl, aged three years, of good health in general, had her hair grow excessively long during the course of a few months. She was a beautiful child, but had latterly wasted without any apparent cause, becoming dull and apathetic, losing her appetite and strength, without any organic lesion being discernible. She was placed upon a tonic regimen, with chalybeates, but without deriving material benefit, until her hair was cut short, at the suggestion of a friend, from which time she rapidly gained strength.

It would appear, from this case, that the economy had suffered a loss in the expenditure of blood necessary for the secretion of the abundant crop of hair. M. Frederique considers that it is the formation of the coloring matter which chiefly exhausts the blood, as this is formed at the expense of the hæmotosine. — *Farmer and Mechanic.*

GROANING AND CRYING. — A French surgeon lately published a long dissertation on the beneficial influence of groaning and crying, on the nervous system. He contends that groaning and crying are the two grand operations by which nature allays anguish, and that he has uniformly observed that those patients who give way to their natural feelings, more speedily recover from accidents and operations than those who suppose it is unworthy a man to betray such symptoms of cowardice as either to groan or to cry. He is always pleased by the crying and violent roaring of a patient during the time he is undergoing a severe surgical operation, because he is satisfied that he will thereby so soothe his nervous system as to prevent fever, and insure a favorable termination. From the benefit, hysterical and other patients (nervous) derive from groaning and crying, he supposes that by these processes of nature, the superabundant nervous power is exhausted, and that the nervous system is rendered calm and even, the circulation of the blood greatly diminished. He relates a case of a man, who, by crying and bawling, reduced his pulse from one hundred and twenty to sixty, in the course of two hours. That some patients often have a great satisfaction in groaning, and that hysterical patients often experience great relief from crying, are facts which no person will deny. As to restless, hypochondriacal subjects, or those who are never happy but when they are under some course of medical or dietetic treatment, the French surgeon assures them that they cannot do better than groan all night, and cry all day. By following

this rule, and observing an abstemious diet, a person will effectually escape disease, and may prolong life to an incredible extent. — *Selected.*

Mechanics' Department, Arts, &c.

ALUM. — The uses of alum are manifold and important. Incorporated with paper, it presents a hard, smooth surface, fit for writing upon; furriers employ it in the preservation of the hairy covering of skins; it retards putrefaction in animal substances, and hardens the tallow used for candles. Its astringent properties are valuable in medicine, and its caustic properties, as calcined alum, in surgery. But it is in dyeing that the use of alum is most important and most widely diffused. It is rare that coloring matters present any affinity to the substances to be dyed; most of them would disappear with the first washing, were there no medium by which they could be fixed. The substance employed for this purpose is called a *mordant*, or *bitter-in*; and in this respect alum holds a preëminent rank. This mineral is also made subservient to other less praiseworthy purposes; bakers use it to give a good color to bad flour, and to swell a comparatively small lump of dough into a large loaf; iced ginger beer and lemonade, offered for sale at railway stations and other places in England, if narrowly inspected, will be found imbedded in lumps of alum, which pass very well for ice. — *Farmer and Mechanic.*

IMPORTANT INVENTION. — An invention has been made, and will soon be brought before the public, of great importance to railroads, both as relates to expedition and safety in the running and management of trains — and one which will add greatly to the security of property and life. It is an apparatus called the *self-adjusting brake*, in which the brake and coupling of the cars are combined in one, and so arranged that a single brakeman can control a long train of cars, and bring them to an almost instantaneous stand when in full motion. By one and the same operation the brake is brought to bear with equal force on the wheels of each car, so that all are checked in the same degree, and there is none of the jamming together of the cars which is usual in bringing a train suddenly to a stand. The cars couple themselves when they come together, and the brakeman can couple or disconnect the whole train without stepping from the platform, and can control the train equally well from any platform in the train. The power he is able to apply at any instant is immense, and may be varied at from one pound to twenty tons, at will. When a train is so very long as to make more than one brakeman desirable, as is sometimes the case with freight trains, the moment the brake is applied by one of them, it conveys the necessary signal to the other.

This improvement has been examined and highly approved by some of the most practical and scientific mechanics in the country, among them Mr. Keeler, of the Patent Office, so well known for his great mechanical knowledge, whose favorable opinion may be considered as conclusive in its favor. — *Selected.*

SOLDERING CAST IRON WITH WROUGHT IRON. — The following process has been recommended for that purpose: First, melt filings of soft cast iron with calcined borax, in a crucible; then pulverize the black vitreous substance, which is thereby produced, and sprinkle it over the parts which are intended to be united; after which heat the pieces of

cast and wrought iron, and weld them together on an anvil, using only gentle blows. This method is peculiarly applicable to the manufacture of iron articles which are intended to be made red hot, and are required to be impervious to fluids — as such a result cannot be obtained by simple fastening. — *Selected.*

FERTILIZING MANURES.

Professor J. J. Mapes, in a letter to the New York Tribune, makes mention of a great meadow in New Jersey, and its value as a fertilizer. He thus treats of the matter, which cannot but be instructive to all friends of agriculture: —

"This meadow muck may be considered as organic matter not in a state of decay, and if placed in soil without first inducing a chemical change, it will not act as a fertilizer. As compared with well decomposed stable manure, it bears the same analogy that sour-kraut does to cabbage. If sour-kraut be buried under the surface of the earth, it will remain for many years unaltered, while cabbage under similar treatment would be readily decomposed. If the excess of acid be first removed from kraut, it will then decompose as readily as cabbage, and from the same causes. The muck is composed of the lighter particles of surface soils carried to its present locality by the rain; after being saturated frequently with salt water, its decomposition is arrested, and under this organism a style of gases peculiar to marshes takes possession of its surface. These gases are continually adding the carbon, which they receive from the atmosphere in the form of carbonic acid gas, to the muck, as the principal result of their decay, and thus the muck is found to contain large amounts of carbonaceous matters. When muck is exposed to winter frosts, the ultimate fibres of the decomposed roots it contains are torn asunder, and the mass is thus rendered pulverulent. In this state it is fit for easy decomposition. The quality of the grasses is much better on meadows which have been ditched for the purpose of supplying muck, and thus part of the cost of procurement is paid by the improved mowings.

"Muck may be decomposed in various ways, and will always produce beneficial results when used after decomposition as a manure. When mixed intimately with wood ashes, either the leached or unleached, it forms one of the best manures for fruit trees; and while the quantity of common salt it contains is insufficient to injure the peach, it is sufficient to prove highly serviceable to the plum; while its large proportion of carbonaceous matter renders it capable of receiving and retaining the ammonia of the atmosphere until required for the use of the roots. Muck is not a protection against the peach-worm, but trees, the trunks of which are surrounded by it, are less liable to their attacks. Muck, when mixed with ashes, readily receives moisture, and, if water be in great excess, the muck will for a long time prevent the land from souring, or the water from becoming fetid.

"When urine of animals is mixed with swamp muck, it already undergoes decomposition, and the resulting gases are retained. One tenth part of stable manure, well mixed with muck, will be found sufficient to cause the mass to heat readily and become as clear manure for farm use. If muck be placed under cows, oxen, &c., and covered by the bedding, so that their urine will pass through the bedding and combine with the muck while it contains the animal warmth, then the muck will be decomposed, and the warmth of the body of the animal while sleeping will materially assist in the decomposition. The solid manures, remaining atop of the bedding, should be removed each morning, and mixed with new portions of muck in the preparation

before stated for mutual decomposition. If the liquid manures from stables be led by gutters to eisterns, and, when cold, pumped upon muck, it will not decompose one half the quantity as when applied containing the animal warmth. Each horse, ox, or cow, will supply the means of converting one cord of muck per week into manure equal to ordinary barn-yard manure; while the ready pulverulent character of the mass renders such compost much more easily divisible during tillage. Large quantities of muck may be thrown with advantage into the hog-pen; and new quantities should be added as often as any odor can be perceived arising from the surface of the pen. I have used large quantities of muck in these manures, and have found it advantageous to remove and renew the muck of the stables and hogpen every ten days, always placing it under manure sheds, to prevent its exposure to useless currents of air, for evaporation, and to assist in maintaining an equable temperature, to assist its decomposition. When larger quantities of manures are required than can be formed from these means, then new quantities of muck may be decomposed by the process given in the 'Working Farmer,' p. 4, under the head of 'Lime as a Manure.' By use of the lime and salt mixture as there described, any amount of manure may readily be formed from muck.

"Either fresh or salt muck makes a good divisor for night soil, absorbing all the more fluid parts, and at the same time rendering the mass, with the slight addition of two bushels of plaster of Paris to the cord, entirely inodorous.

"Dead animals, if cut into small pieces, (say from one to ten pounds each,) coating slightly with ashes, and then burying them in muck, will convert the whole muck into a most powerful manure. The waste of glue factories, slaughter-houses, &c., may be so treated, and every hundred pounds of animal matter will convert one cord of muck into good manure. The spent ley of the soap-boilers, if thrown upon muck, soon converts it into available manure, and every ten gallons of this spent or salt ley, as it is called, is fully equal in its beneficial effects upon soil, after proper division with muck, to one bushel of ashes.

"Guano, hen and pigeon dung, bones after having been treated with sulphuric acid, and, indeed, all the more powerful classes of manure, should be divided by admixture of muck before being used upon land.

"When muck cannot readily be procured, then surface earth from old woods, pure mud, head-lands, &c., may be similarly used, if of a character not containing sufficient carbonaceous matter and charcoal dust. Some have objected to taking the surface earth from woods, under the impression that they should impoverish the soil; but if they will replace half the value in lime and salt mixture in the place of the surface taken, the woods will generally gain by the exchange.

"When muck composts are used on sandy soils, they are rendered more tenacious, and when mixed with clay, this soil is rendered more valuable. In my next communication, I will treat of my experience in the effects produced by deep subsoil ploughing. The facts stated above, in relation to muck and its compounds, are in strict accordance with the results obtained in my practice, and may be depended upon as correct."

MANURE.

Manure is the great sinew of agriculture, as money is of war; and the making the best of every advantage or opportunity for increasing the quantity of it, is one of the most prominent traits in the character of a good farmer.

SALTING STOCK.

A correspondent of the Farmer, some time ago, offered some speculations about salting stock — questioning the utility of the practice, and asking for actual experiment.

The animal system has no power to create any of the elements of flesh, organized tissue, or salutary secretions. But the organs of nutrition and assimilation have wonderful power to modify the chemical constituents of the animal body, into a part of that body, when they are supplied. Healthy, perfect animals cannot be raised or kept unless all the various chemical constituents of bone, meat, fat, &c., are furnished in food or drink, or in the atmosphere they breathe. Combinations of gluten, starch, oil, &c., found in the food of herbivorous animals, supply much of the material for organized tissue and fat, and abundance of carbon for the purposes of respiration. But a variety of mineral substances are equally necessary, to wit: Phosphorus for the formation of nervous tissue, bones, white and yolk of eggs, and milk. It is furnished in the grasses and seeds of plants. Sulphur exists in flesh, eggs, and milk. It is found in most spring and river water, and in some plants with their azotized compounds. Lime is a well-known ingredient in the animal structure. It is equally abundant in the vegetable kingdom and in all hard water. Iron is a "*sine qua non*" in red blood, animal flesh, yolk of eggs, and milk. It is supplied in some water and in many vegetables.

Common salt is no less important in the animal economy. It is contained in flesh, in the egg, in milk, and other fluids. It is a combination of muriatic acid and soda. The first named is essential to the gastric juice, making it a ready solvent of many substances which would otherwise be useless to the purpose of assimilation. Common salt is scarcely found in plants, except such as grow in salt marshes, salt licks, or sea water. This deficiency must be supplied. Instinct and appetite impel wild animals to seek such marshes and licks, where they choose the raw material in the most concentrated form they can find it. Domestication prevents animals from obeying this desire, and renders it our duty and interest to mingle it with their food or treat them regularly with this luxury, as their actions prove they esteem it.

By the advice of some old farmers I have fed my pigs with salt freely and regularly, especially while fattening, for four or five years; and am satisfied that it is of great service in giving permanency to the appetite and solidity to the flesh — besides being well paid for expense and trouble in grateful grunts and smacking chops.

J. H. BEECH, M. D.

GAINES, N. Y., 1849.

— *Genesee Farmer*.

REMARKS BY EDITOR N. E. FARMER. — Some persons contend that salt is not necessary for stock; but it seems to us that they do not take a candid view of the subject. Practical knowledge, in tending animals, shows that they naturally require salt. Their taste for it is not perverted, like that of man for alcohol, tobacco, and opium. The young animal craves salt, and partakes of it greedily and with a relish. But the child loathes alcohol, until it is diluted, and made palatable by sweetening, and a love of it is acquired only by habit and the power of fashion.

This natural appetite, with the salutary effect from the free use of salt by animals, and the evidence, from a scientific investigation, that the elements of salt are component parts of animals, and

that these ingredients are generally deficient in herbage, are sufficient, in our opinion, to show, that animals should either have a suitable quantity of salt mixed with their food, or they should have constant access to salt, and help themselves as they desire.

NEATNESS IN SCHOOLS.

Those who know enough to be school teachers, know that filthiness is offensive to the best part of people. If a teacher's influence over his scholars tends to make them indifferent about cleanliness, it tends to separate them from the best society, and make them companions of the vile. They know, too, that there is a connection between our external circumstances, and the state and actions of our minds. There are many indecent and injurious things which children, and adults too, will do in a dirty room, which they would not do in a clean one. They know also that habits are rapidly forming while children attend school. If they are accustomed to be neat in their persons and dress, and to have things neat around them when at school, they will be much more likely than they otherwise would be, to give due attention to neatness in future life, and that is a matter of no small importance.

Cleanliness is an important virtue, and one the practice of which is very sure to lead to other virtues. It causes a carefulness about things, which greatly promotes economy. It calls for the doing of some things frequently, and that tends to industry. It causes attention to what one is doing, and what is done near him, and to whatever else may affect him in relation to cleanliness, and thus promotes mental activity.

Let me, then, say to those who expect to teach, Do what you can to promote neatness among your scholars. Your endeavors for it, if wisely made, will be among your best commendations to them and to their parents, and tend to bring you their approbation and aid. They will also be among your best means for preserving good order, and securing attention to study; and thus serve to make your work more easy and pleasant. If I were to go into your school-room, and find it dirty, and evidently through your negligence, (and it would be by your neglect if not swept within twenty-four hours,) I should say to myself, "This teacher is not fit to have the care of children. He either does not know the need of keeping out the dirt, or he does not as well as he knows how." — *Clarion*.

AN AFFECTIONATE GOBBLER.

A friend, who has been very successful in raising poultry, states that a turkey of his recently had a large brood, and then suddenly died, and "made no sign." The old turkey cock, immediately upon her demise, took charge of her young family, conducting them abroad in the daytime, and at night sheltering them under his wings with all the care of a mother. The widowed gentlemen with the red gills is in all respects a pattern of kindness and affection, not often seen among the descendants of the turkey line. — *Lowell Courier*.

We are informed of a still more singular case than this, which has occurred in a neighboring town the present season. The turkey hen had laid the proper complement of eggs, but did not incline to set; therefore Master Gobbler took it into his head to do the setting, which he did, and hatched a fine brood. He attends to them with truly maternal care, and more than maternal ostentation, and gives every promise of a most successful experiment. — *Worcester Spy*.

NOTICES OF PUBLICATIONS.

TRANSACTIONS OF NEW YORK STATE AGRICULTURAL SOCIETY. — We have received this valuable work from the Secretary, B. P. Johnson, Esq. It contains the doings of the State society, reports of the county societies, various communications from distinguished agriculturists and horticulturists, in different sections of the country, making a neat, beautiful, and large octavo volume of nearly a thousand pages, embellished and illustrated by numerous and excellent engravings. This work contains a fund of the most valuable information; and great credit is due Mr. Johnson for the able and faithful manner in which he has prepared this copious work, which must have required much arduous labor.

HOVEY'S MAGAZINE OF HORTICULTURE. — The August number contains a variety of valuable matter. Six native pears are figured and described. We shall soon have native pears enough, and of such excellence that we can dispense with many of the uncertain foreign kinds. Mr. H. shows that after the high commendations of new strawberries, Hovey's Seedling takes most of the prizes at the horticultural shows.

AMERICAN FLORA. — This monthly for August is embellished with four beautiful, colored engravings. It is a splendid work, replete with the most valuable instruction. New York, Green & Spencer, 67 Bowery. By Dr. A. B. Strong.

ILLUSTRATED NATURAL HISTORY. — This work is a monthly, by the same editor and publisher as the foregoing. It is highly interesting and instructive, and beautifully illustrated with various animals and scenery.

REMARKS ON the Petition for an Act for Incorporating the College of the Holy Cross. — This is a pamphlet of 28 pages, which we have not had time to peruse.

HISTORY AND DESIGN of the American Institute of Instruction, by Geo. B. Emerson, President of the institution.

DESCRIPTIVE CATALOGUE of Fruit and Ornamental Trees, Shrubs, Roses, &c., at Andre Leroy's nurseries, at Angers, Maine and Loire, France.

OUR COUNTRY.

On no country more than our own have the charms of nature been prodigally lavished; her mighty lakes like oceans of liquid silver—her mountains with their bright aerial tints—her valleys teeming with fertility—her tremendous cataracts thundering in their solitude—her boundless plains waving with spontaneous verdure—her broad, deep rivers, rolling in solemn silence to the ocean—her trackless forests, where vegetation puts forth all her magnificence—her skies kindling with the magic of summer clouds and glorious sunshine—no, never need an American look beyond his own country for the sublime and beautiful of natural scenery. — *Irving.*

Pekin at one time was the largest city in the world. London is now the largest, and New York is the largest city in the United States.

MY COUNTRY.

I love my country's pine-clad hills,
Her thousand bright and gushing rills,
Her sunshine and her storm;
Her rough and rugged rocks, that rear
Their hoary heads high in the air,
In wild fantastic form.

I love her rivers deep and wide,
And those bright streams that seaward glide,
To seek the ocean's breast;
Her smiling fields, her fertile vales,
Her shady dells, her pleasant dales,
Her haunts of peaceful rest.

I love the forest dark and lone,
For there the wild bird's merry tone
Is heard from morn till night;
And there are lovelier flowers, I ween,
Than e'er in eastern lands were seen,
In varied colors bright.

Her forest and her valleys fair,
Her flowers that scent the morning air,
Have all their charms for me;
But more I love my country's name,
Those words that echo deathless fame,
And sound from sea to sea.

THE OLIO.

A SEVERE RETORT. — George the Second observed a lady whose dress displayed rather the largest portion of her chest. "Madam," said the monarch, "allow me to place my hand upon that soft bosom." "Sire," replied the lady, "give me your hand, and I will put it upon a much softer place." She took his hand, and laid it on his head.

THE LAW. — An editor down south, who served four days on a jury, says he's so full of law, that it is hard for him to keep from cheating somebody.

HOOR OF DEATH. — It will afford sweeter happiness, in the hour of death, to have wiped one tear from the cheek of sorrow, than to have ruled an empire, to have conquered millions, or enslaved the world.

A celebrated wit made one of his happiest jokes when he heard that Bishop, who had been sent to Portsmouth preparatory to transportation for life, had escaped. "Gad, sir," said he, "he must have been an *arch Bishop* to do that; and yet his dislike to the *see* is quite unaccountable."

Like a dog in a wheel, birds in a cage, or squirrels in a chain, ambitious men still climb and climb, with great labor and incessant anxiety, but never reach the top.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18 $\frac{1}{2}$ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1 $\frac{1}{2}$ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I. SATURDAY, SEPTEMBER 1, 1849. NO. 19.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

SOWING GRASS SEED.

THE latter part of summer and early in fall is a good season for sowing grass seed, excepting clover, which in such cases should be sowed in March, as soon as the snow is off. It is better to sow by the tenth or twelfth of September, though it would answer to sow later, if we have what is called a late fall, that the grass may get a good start before winter.

In some late, warm falls, good success has attended sowing grass seed as late as the latter part of September, and even early in October; but generally there is a risk in sowing so late; yet the risk should be considered merely in the seed, and not in the crop; for if it fails, it may be ascertained in March, in time for sowing and getting a pretty good crop the same season.

When grass seed is sowed the latter part of September, or at a later period, and early enough to vegetate the season it is sowed, it is very liable to be winterkilled, in an open, changeable winter. Sometimes the earth is covered with snow, and the winter is regular, and the grass will not be killed. We lately noticed some very stout grass, left at our office, which was from seed sowed so late last fall, that it had just started before winter. Yet it was not winterkilled. This may be considered an exception, rather than a general result.

Lands sowed to grass last spring, that have failed from drought, may now be ploughed and re-sowed, with a fair prospect for a full crop next season.

Wet grass lands may be top-dressed; or, if very uneven and full of weeds and wild grasses, plough well, by completely inverting the sod, and laying the furrow-slice smooth. Then manure, harrow thoroughly, to make fine tilth at the surface, sow grass seed, work it in with a bush-harrow, and roll. Any grass lands may be renovated in this way, if it is not desirable to have a tilled crop intervene.

As to the quantity of seed to the acre, there is a wide difference in opinion. Some sow a peck of herdsgrass to the acre, others a bushel; and a few sow less, making still wider extremes. When land is in a high condition, and the season is favorable to

promote its vegetation and growth, so as to cause it to branch or tiller, eight or ten quarts of herdsgrass, with redtop and clover, are sufficient. Again, under unfavorable circumstances, as to soil and season, a bushel will hardly be sufficient.

We sow about half a bushel of herdsgrass to the acre, and the same quantity of redtop, if it contains as much chaff as usual. In some cases, redtop is nearly clean seed, and a less quantity is required. We sow two or three, or eight or ten pounds, of clover to the acre, according to the quality of hay desired. On rather dry land, where we would sow the most clover, the other grasses will not succeed so well as they do on wet lands, where less clover is required.

With this amount of seed, on good land we can raise two and a half to three tons of hay to the acre, at a single cutting, and of excellent quality, and fine enough for any stock; but with thin sowing and a rank growth, to make a large crop, the hay will be coarse.

CATTLE SHOWS AND FAIRS.

Massachusetts Horticultural Society, at their hall in School Street, September, 18, 19, 20, and 21.

New York State Agricultural Society, at Syracuse, September 11, 12, and 13. Address by Professor Johnston, of England.

North American Pomological Convention, at Syracuse, commencing September 14.

Vermont Fruit-Grower's Convention, at Montpelier, October 18.

Worcester County Mechanics' Association, at Worcester, commencing September 18.

The Salem Mechanic Association, at Salem, September 25, and through the week.

New Haven (Ct.) Horticultural Society, at New Haven, September 25, 26, and 27.

Worcester (Mass.) Agricultural Society, at Worcester, September 20.

Norfolk (Mass.) Agricultural Society, at Dedham, September 29.

Berkshire (Mass.) Agricultural Society, at Pittsfield, October 3 and 4.

Middlesex (Mass.) Agricultural Society, at Concord, October 3. Address by Lilly Eaton, Esq.

Essex (Mass.) Agricultural Society, at Salem, September 27. Address by Hon. Asa Newhall.

Bristol (Mass.) Agricultural Society, at Taunton, October 11.

Housatonic (Mass.) Agricultural Society, at Great Barrington, September 26 and 27.

Litchfield (Ct.) Agricultural Society, at Litchfield, September 26.

East Somerset (Me.) Agricultural Society, at St. Albans Village, October 3 and 4.

Aroostook (Me.) Agricultural Society, at Holton, October 3 and 4.

MILK-HOUSES.

Opinions have changed as to milk-houses. Some years since, those made by a spring or cold brook, so that cold water would constantly run around the pans, were considered the best; and those who had not the advantages of a stream of cold water, chose a cold part of the cellar, as the next most eligible situation.

But experience shows that spring houses are too damp, if not too cold, and the bottom of a cellar, if neither too cold or damp, is generally without sufficient ventilation; and in a cellar there are generally many substances injurious to milk, and if a room is made in the cellar purposely for milk, it often communicates with other parts that are used for various purposes.

We think that milk-rooms may be made above the ground, or partially above it, so as to have a good ventilation, and, of course, a pure air, and at the same time be sufficiently cool. If no ice is to be used to mitigate the extreme heat, it may be necessary to have the bottom of the house a few feet below the surface of the ground, or to have it constructed on a plan similar to that of an ice-house, in part, excepting arranging it for thorough ventilation, which is not necessary in ice-houses.

If a part of the cellar is used for a milk-room, it should be in the driest part, and where the house is most elevated, that there may be an opportunity for windows well arranged for ventilation. In a close, deep cellar, foul air settles to the bottom, which has an unfavorable effect on milk and butter.

One important objection to cold, damp, and unventilated milk-rooms, is their unhealthy condition for those who attend to the milk, and to churning, and working and packing butter in such rooms in very hot weather.

We copy the following interesting article on this subject from the Wool-Grower, an excellent paper, recently started by Mr. Peters, of the Buffalo Wool Depot.

"Experience had taught me that the great difficulty to be encountered in the manufacture of butter, in warm weather particularly, is the preservation of the milk after it is taken from the cow, until all the cream can rise to the surface, be taken off and transferred to the churn in a perfect state. To obviate this difficulty, after a consultation with my wife, who, by the way, I must be allowed to puff a little,

is *au fait* in all matters of this kind. We devised, and caused to be constructed, a milk-house, on the plan and of the dimensions following. Intending to make butter for my own family use only, the arrangements were to be, of course, upon a corresponding scale.

"Now then, to a description of the building:—

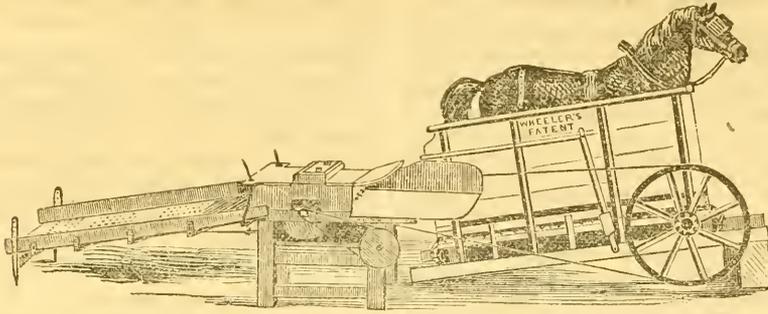
"Frame, of joist and scantling, seven by ten feet; six and a half feet from floor to plate, covered with inch pine stuff, planed and matched, painted on the outside; roof of the same. At each end, and near to one side, a window, exactly opposite each other, twenty inches wide, extending from the floor to the bottom of the plate, covered with wire cloth sufficiently fine to exclude flies, and painted to prevent rust. In the front end a door, and in the rear end a window exactly opposite, about twenty by thirty inches, covered same as the other windows, and placed sufficiently high from the floor to be on a level with a stationary table, (one and a half inch plank,) for the convenience of straining, skimming, working out butter, &c. Six shelves on one side of the room, ranged one above the other. These shelves are each composed of two strips of pine stuff, one and a half inches in diameter, and of the length of the room, joined together at the ends and middle by cross pieces framed in, leaving the longitudinal strips about four inches apart. These shelves are supported at the ends by strips nailed to the window-frames inside, at suitable and equal distances, and at two places between these points, by corresponding strips, fastened at one end to a stud, and at the other to a stanchion placed about twenty inches in front of the stud, and secured at the top and bottom. This distance is necessary, that the shelves may slide back and forth, as convenience in handling pans of milk requires. In this way, but a small part of the bottom of the pan is covered by the shelf, leaving a free circulation of air, which comes in at the windows at each extremity. The building is placed under a cluster of fruit trees, which effectually shield it from the rays of the sun during the heat of the day. A second roof of rough boards, elevated, say two feet above the top of the milk-house, and of sufficient dimensions to cast a shade all around it, would doubtless answer every purpose.

"I do not pretend to say that this is the very best kind of milk-house that can be constructed, but it is the best that we could devise, and with its results we are perfectly satisfied. It answers admirably all the purposes for which it was intended. The milk keeps much longer before changing, giving an opportunity for all the cream to rise; and during the warmest weather in July and August, we are enabled to make the choicest kind of butter, and, for aught I can discover, as much in proportion to the quantity of milk, as at any other time of the season. We have the benefit of an ice-house in close proximity, the contents of which I consider an indispensable auxiliary in the manufacture of butter in warm weather.

"Before the erection of this building, we had tried in vain to make butter in warm weather. The cellar was too damp, or too cold, or too something, and the pantry too hot."

FENCE POSTS.

A practical farmer informs the Hartford Times, that in taking up a fence that had been set fourteen years, he noticed that some of the posts remained nearly sound, while others were rotted off at the bottom. On looking for the cause, he found that those posts that were set limb part down, or inverted from the way they grew, were sound. Those that were set as they grew, were rotted off. This fact is worthy the attention of the farmers.



WHEELER'S PATENT IMPROVED HORSE-POWER THRESHER AND SEPARATOR.

Considering the extensive use of this machine, and the approval of numerous intelligent farmers who have used it, and judging from its operation, we regard it as the most popular and valuable threshing machine now in use. Its simplicity of construction commends it to the observer, on inspection; and in operation it shows more distinctly its fitness for its purpose, by the despatch of work and the neatness with which it is executed.

Some advantages obtained by the farmer using and owning these machines, are the following:—

1. It is very portable, simple, durable, and efficient, and equally adapted for threshing all kinds of grain, clover, and timothy seed.

2. Owing to its great simplicity of construction, the friction is reduced, less power is required, as the weight of the horses is sufficient, with an elevation of twenty inches in ten feet, not causing injury to horses, as in ordinary tread-powers. No driver is needed, and fewer men are required to attend their operation.

3. The expense of threshing is much reduced, and all can be managed by the hands usually about a farm, and in stormy weather can be operated inside of barns, when laborers and teams can do little else to advantage.

4. The farmer, having one of these machines, can at all times take advantage of the markets, and obtain the highest prices without extra expense, or being dependent upon others for machines or assistance—no small item in these days of fluctuating prices.

Three men, with a single power, can thresh seventy-five to one hundred bushels of wheat or rye, or four men, with a double power, one hundred and seventy-five to two hundred and twenty-five bushels of wheat or rye, or double that quantity of oats or buckwheat, per day; and with fanning mill attached to the power, and one man to attend it, the grain can be cleaned for market at the same time.

The price of a single power, with threshes, separator fixtures, bands for drivers, &c., is \$125.

These machines are manufactured by Mr. H. L. Emery, Albany, N. Y., and sold by Messrs. Ruggles, Nourse, Mason, & Co., Quincy Hall, Boston.

WINTER WHEAT.

The first of September, or former part of this month, is a favorable season for sowing this grain; and we hope that farmers in New England will make experiments in raising it, for we have no doubt that, with hardy varieties, it will be a profitable crop. Should it fail occasionally, it may be no more uncertain than other crops. The crop is sometimes cut off in those states that furnish New England with large quantities of flour. The Hessian fly, the wheat worm, and the rust prevail, sometimes, in all sections, and wheat is liable to be winterkilled in almost all parts of the country. Then why should we be discouraged under the many disadvantages under which other farmers sustain themselves, and supply us with flour, and feed, sometimes, many millions in Europe?

Good crops of the White Flint winter wheat have been raised in Andover, Haverhill, Attleboro', and in other towns. Mr. S. M. Stanley, of Attleboro', a very intelligent and economical farmer, has succeeded well with this grain. Mr. Henry Poor, of Andover, has raised large crops of it. Though a merchant in this city, he shows commendable zeal and intelligence on this subject, that ought to wake up the farmers, and induce them to try the experiment.

Hon. Rufus M'Intire, of Parsonsfield, Me., has succeeded well with the Blue Stem winter wheat. A good crop of wheat is very profitable, as it requires but very little labor. With a good soil and favorable climate for wheat, why should New England depend on other parts of the country for the staff of life?

We have in our office a fine specimen of the White Flint wheat, raised by Mr. Poor, and in an adjoining room may be seen a specimen in the straw, which is an evidence of its large growth.

This wheat is cultivated very extensively in the state of New York, and in some other sections of the country, and it is regarded as one of the very best varieties, both in quality and in its habits of hardiness, production, &c. We hope that farmers will pay more attention to this subject, and endeavor to raise wheat enough in this section for at least our own supply.

For the New England Farmer.

FRUIT GARDEN, STRAWBERRY, &c.

MR. EDITOR: After so much has been said and done by horticulturists, to induce farmers to turn their attention a little more to the cultivation of the various garden fruits, it is surprising that any farmer should neglect their cultivation, and be willing to deny his family the luxuries which a garden and fruit-yard furnish. A farmer to be a good "liver" in these days, must furnish his wife with various garden fruits and vegetables, if he expects her to prepare him a good dinner. He must set out a few of the best kinds of cherry-trees, if he expects his wife to furnish his table with a cherry-pudding now and then, and he must not complain if she sets before him a poor dinner if he does not furnish her with the means for a better. Quince, gooseberry, currant, peach, and plum, make excellent preserves; and no doubt but every farmer's wife would be delighted to set them on the table, if her husband would furnish her with the "wherewith."

The strawberry is one of the many kinds of fruits that seem most indispensable. It is a most delicious dessert fruit, and is said to contain many medicinal virtues. In putrid fevers and pulmonary complaints it is said to be a valuable medicine.

Strawberry jam is excellent, and no farmer's wife should consider her tea-table complete unless she has upon it, among other good things, this delicious preserve.

But while we insist that the good housewife should furnish her table with this delicious fruit, we would not compel her daughters to ramble about the fields, as in days of "yore," in their sun-bonnets, with basket in hand, in pursuit of the strawberry, but we would have every farmer devote a small portion of his garden and time to their cultivation. By a little labor a full supply may be had through the season. The strawberry is easily cultivated, and many varieties have been produced, some of great excellence. An open situation, and a rich, loamy soil, is required for most varieties. The row culture is most convenient, and frequent renewal insures vigorous plants and large fruit. I have not time at present to say all that is necessary to be said about the cultivation, variety, &c., of this excellent fruit; but would advise every farmer to purchase the American Fruit Book, and commence on a fruit garden without delay, and I will be bound to say that in five years' time he would not part with his garden for five times the amount of capital expended upon it.

ROCKINGHAM.

EDITORIAL REMARKS. — Notwithstanding the great attention paid to fruits, which has been stated to amount almost to a mania, yet not one farmer in five has a good assortment of fruits, or but very little besides apples, and frequently they are not of a choice collection. We can assure them that, if they will go into the general culture of various kinds of fruit, which will not be expensive, that their helpmates will furnish their tables with numerous excellent dishes, that will make a great improvement in their diet, both as to health and palatableness, and save no small expense for meats, butter, &c.

For the New England Farmer.

ANALYSIS OF SOILS, &c.

FRIEND COLE: Since I have had the pleasure of reading the Farmer, I have noticed frequent allusions in its columns to the chemical analysis of soils,

in order to ascertain what is needed to produce any kind of vegetable, grass, or grain. From faint recollections of chemical principles, learned in schoolboy days, I believe this object can be attained by every one.

The question often comes into my mind, Is this subject not of great importance to the farmer? Does it not often occur that fifty dollars worth of muck and manure are expended upon a single acre of land, and yet but a light crop is obtained? And why? Because the nature of the soil is not understood. What chemist will inform the farmers, through the columns of the Farmer, how we shall be able to decide what manures different kinds of soil demand for different crops?

Thine with respect,

Z. BREED.

WEARE, N. H., 8th, 13th, '49.

EDITORIAL REMARKS. — We hope that some of our correspondents will throw light upon the subject of friend Breed's inquiry. It often happens that the farmer can obtain some kinds of manure much easier than others, and it is important for him to know whether the cheap kind is well adapted to the purpose of improving his soil. Perhaps lime can be very conveniently obtained; how important, then, to know where the land is deficient of this ingredient, or whether there is an ample supply, and all labor in applying this material would be lost.

Again, a farmer has various kinds of manure, as animal, vegetable, and mineral; and subdivisions of these general kinds, as marl, clay, lime, plaster, bone, horn, ashes, soot, urine, salt, ley, soap-suds, sink-water, &c. &c. He also has various kinds of soil, and wishes to raise a variety of crops. How great is the skill required, in order to adapt the manure to the soil, and the crop to the soil and manure. Verily, great skill both in science and practice is necessary to enable the cultivator to go through all the various operations of his profession in the most judicious manner, in order to get the greatest amount of produce from the labor and manure expended.

The numerous facts, so necessary for successful farming can be learned only from practice, observation, reading, and reflection; and the obtaining of such information is a gradual work — a work of time. If it was all poured into the mind at once, it could not retain it.

For the New England Farmer.

MANAGEMENT OF FRUIT-TREES IN THE NURSERY.

FRIEND COLE: Would not more care in the management of fruit-trees in the nursery than is generally taken, result in the benefit of the purchaser, on account of their being more healthy, and of better constitution?

Careful observation has induced me to believe that it would well pay for the trouble of applying cement to the stock when cut off, after budding, which would preserve the wood in a sound condition until cut close to the bud the succeeding year, when the same protection should be applied.

Shellac, put on with a brush, is a trifling expense. I have often observed, in cutting to the bud, when not protected, that the wood was in a state of decay, and in some instances had extended some inches below the bud, which occurrence I never observed

where the stock was protected. The remark is often heard that fruit-trees which have been changed by budding or grafting are not so healthy and long-lived as those which are not. I am of the opinion there is some truth in the remark; yet when the operations are performed so as for a reunion to be effected without any appearance of decay, I apprehend the difference would be less than is the case in general.

D. TABOR.

VASSALBORO', ME., 6th mo., 1849.

EDITORIAL REMARKS. — We think that it would be profitable to apply something to the protection of the stock, when cut after budding, particularly to cherry stocks and others very liable to decay. In apples and pears, decay is not so common. Shellac, dissolved in alcohol, is excellent for this purpose, and it may be applied rapidly. Gutta percha, dissolved in chloroform, to the consistence of thick molasses, is a new article for this purpose, introduced to notice by Dr. E. Sanborn, of Andover, which promises to be very useful.

As budded stocks are cut off in spring, they are very liable to decay, as that is the most unfavorable of all seasons for pruning trees, or cutting them in any way. Yet the stocks must be cut in spring, as it cannot be ascertained, till that season, what buds will be good.

In cutting the stock down to the bud, we prefer doing it in August, generally; sometimes late in July or early in September; which is the most favorable season for pruning or cutting trees, as the wood will generally season and remain sound. But if cutting the stock down to the wood be deferred till the next spring, it would be best to apply some composition to exclude the rain and hot sun.

It is a well-established fact that trees budded or grafted are not so hardy, or long-lived, and generally not so large, as natural trees. One cause of these imperfections is that suggested by friend Tabor; another cause is the dissimilarity between the stock and scion. One may be early, the other late; one a rapid and the other a slow grower; and there may be various other differences. In some cases the texture of the wood varies materially. That the stock affects not only the scion, but the fruit of the scion, is abundantly proved by practice. Some say this is contrary to science; but as science is a system of truths established by experience, science and practice are the same.

PURCHASE OF HORSES.

Nothing requires more caution than the purchase of horses; and we give the following hints, which are extracted from the excellent volume "On Horses," published by the Society for the Diffusion of Useful Knowledge:—

"In the purchase of a horse, the buyer usually receives, imbodyed in the receipt, what is termed a warranty. It should be expressed thus: 'Received of A. B. forty pounds for a gray mare, warranted only five years old, free from vice and quiet to ride or drive.' It is important to observe that the age, freedom from vice, and quietness to ride or drive, should be mentioned, because warranty as to soundness alone does not include these. Many disputes have arisen as to what ought to be termed sound or unsound. A horse is sound in whom there is no

disease, nor any alteration of structure which impairs his natural usefulness; and he is unsound if he labors under any disease, or had any accident that has impaired his natural usefulness by an alteration of the structure of any part of his body. The term unsoundness does not apply to any original defect in the temper of the horse, or any deficiency in the strength and powers of the animal. The principal circumstances which constitute unsoundness, besides the great number of actual diseases, are broken knees, which may indicate a stumbler, though not always; for any horse may meet with an accident, and the knee may now be quite well, though it requires great judgment to distinguish in this case. Contraction of the foot is sometimes, but not always, unsoundness; for it is occasionally natural, and not a fault. The following defects are considered to indicate unsoundness: Lameness, through any cause; pumicid foot; sand-crack; spavin; splent; thickening of the back sinews of the leg; thrush; ossification of the cartilages of the foot; defects or diseases of the eyes; coughs, roarings, broken wind, or any defects of the lungs; quidding, or imperfect mastication; cribbiting; biting; kicking; restiveness.

"In order to complete the purchase, there must be a transfer of the animal, or a memorandum of agreement, or the payment of earnest-money; the least sum will suffice for earnest. No verbal promise to buy or sell is binding without one of these; and the moment either of these is effected, the legal transfer of property or delivery is made; and whatever may happen to the horse, the seller retains or is entitled to the money. If the purchaser exercises any act of ownership by using the animal without leave of the vender, or by having any operation performed or done to him, or medicine given, he makes him his own. The warranty of a servant is considered to be binding on the master.

"A man should have a more perfect knowledge of horses than falls to the lot of most persons, and a perfect knowledge of the vender, too, who ventures to buy a horse without a warranty. Where there is no warranty, and a defect is discovered after purchase, an action may be brought on the ground of fraud; but this is difficult to be maintained, for it is necessary to prove that the dealer knew the defect, and that the purchaser was deceived by his false representation. If the defect was evident, the purchaser has no remedy — he should have taken more care; but if a warranty was given, it extends to all unsoundness, palpable or concealed. Although a person should ignorantly or carelessly buy a blind horse, warranted sound, he may return it; the warranty is his guard, and prevents him from so closely examining the horse as he otherwise would have done: but if he buys a blind horse, thinking him to be sound, and without a warranty, he has no remedy. The law supposes every one to exercise common circumspection and common sense. If the horse should be afterward discovered to be unsound at the time of the sale when the warranty was given, the buyer may return it and recover the price; but this proof is requisite; coughing on the following morning will not be sufficient, except the horse was heard to cough previous to the purchase, for the horse might have caught cold by change of stable. Although not compelled to give notice to the seller of the discovered unsoundness, it will be better for it to be done. The animal should then be tendered at the house or stable of the vender. Should the latter refuse to receive him, he may be sent to a livery-stable; for, in case of action, the expense will be recovered with the price; and it will be prudent for the buyer to refrain from any medical treatment. If a person buys a horse, warranted sound, and discovering no defect in him, and relying on the warranty, re-sells him, and the unsoundness is discovered by the second purchaser and the horse returned

to the first purchaser, or an action commenced against him, he has his claim on the first seller, and may demand of him not only the price of the horse, or the difference in value, but every expense that may have been incurred. When an action is brought, the lawsuit is usually very intricate; a fair trial of the horse is allowed, and a certain time specified: but it is not always easy to ascertain whether the fault lies with the horse or his rider, and sometimes the dealer, as well as the buyer, is hardly used. If the horse is detained after the specified time of trial, he is supposed to be sold.

"In London, and in most great towns, there are repositories for the periodical sale of horses by auction. They are of great convenience to the seller, who can at once get rid of a horse with which he wishes to part, without waiting month after month before he obtains a purchaser, and who is relieved from the fear of having the horse returned on account of breach of the warranty; because in these places only two days are allowed for the trial, and, if the horse is not returned within that period, he cannot be returned afterward. They are also convenient to the purchaser, who can thus find a horse that will suit him, and by which, from this restriction as to the returning the animal, he may, perhaps, obtain twenty or thirty per cent. below the dealer's prices. But although an auction may seem to offer a fair open competition, there is no place at which it is more necessary for a person not much accustomed to horses to take with him an experienced friend, heedless of the observations or manoeuvres of the bystanders, the exaggerated commendations of some horses, and the thousand faults found with others. There are always numerous groups of low dealers, copers and chanters, whose business it is to delude and deceive."

TOLLS ON MANURES.

Much would be added to the wealth of our country if turnpike companies would permit manures to pass over their roads without the payment of toll; and when the transportation of increased production is taken into account, the companies themselves would be the gainers by the reform. Every inducement should be offered to farmers calculated to make a market for the refuse of factories, &c., which are now lost, but might be rendered productive of real wealth to the country, if brought into use. Untold amounts of waste at the salt works of our state, would be used as manures, if the *canal toll* on this article, when required as manure, could be lessened so as to deliver the dirty or unmerchantable salt along the line of the Hudson River. The English farmers pay neither tolls nor duty on salt for agricultural purposes, and the wealth of the nation has in consequence been permanently increased to a much larger amount than all the duties ever collected on salt, under the old law. One hundred thousand dollars worth of dirty salt could be sold annually at the city of New York for twelve and a half cents per bushel, which is now wasted for want of a practicable market, and the increased annual product in vegetable results, would be many times that amount. — *Working Farmer.*

DO WELL WHAT YOU ATTEMPT.

Thoroughness with the agriculturist as well as with the student, is the only true rule. Although perfection is to be expected but rarely, yet it should be our constant endeavor to approximate the grand point of ultimate and radical completeness, and by every successive step in our progress to render that point less difficult and less remote. Carelessness,

when it attains the inveteracy of a confirmed habit, like any other evil, grasps us with a controlling force, — its power and intensity of deteriorating and rendering a bad and condemnable practice worse, increasing in proportion as it is indulged. In farming, every step taken, every act accomplished in the routine, is to be contemplated as a beginning. We must plough before we plant; and we must weed before we harvest; and the weeding of one crop, and its removal from the field, is a labor preparatory to the production and maturation of unnumbered crops which, in succession, are to spring from the same soil, and remunerate, in distant futurity, it may be, the laborer for his annual toil.

In the cultivation of arable lands devoted to weeded crops, how essential is this principle of thoroughness, and strikingly is its necessity displayed! Weeds, especially those of indigenous kinds, are gross feeders, taking from the nutritive properties of the soil a far greater per cent. in proportion to their bulk, than the most exhausting cultivated crops; yet weeds abound; they flaunt and luxuriate and multiply, annually, in almost every field. It was not many years since, that the "Canada Thistle" was introduced into the gardens of New England as an ornamental production! It was cherished and stimulated and admired till, waxing mighty, it sent forth its pestiferous germs from the garden and the parterre to the fields, the pastures and the road-sides, and, finally, like plagues of Egypt, overran and devoured, literally in one sense, — and a most emphatic one, — "the fatness of the land."

A few seeds of the dock are dropped, fortuitously, in some untilled corner, or out of the way place, and produce plants: yet the owner of the soil sees no imperative necessity for immediately destroying them; they stand not in his way at present. But the time will come, should he live, when their power will be felt. The progeny of evil multiplies rapidly; and, in due time, the soil all around will be infested and overrun, till what might have been effected by a single stroke of the hoe, demands, for its completion, the labor of many years, of many anxious hours and painful toils.

In draining and enclosing lands, it is too often that the operator consults present convenience rather than future profit; all the details are imperfectly designed and arranged; nothing is thorough or substantial. Instead of going to work in the right way, and expending his money to the best advantage, by investing every dollar in a permanent "improvement," he expends often a large part of his immediately available resources in the construction of mere "gossamer work" — drains that answer no purpose of practical utility, and fences that a twelvemonth will prostrate, or the feeblest zephyr destroy. Such conduct becomes not the liberal-minded and enlightened farmer; it is a part of the "penny wise and pound foolish policy," which, by every judicious person who rightly appreciates his true interests, will be rejected and despised. Young beginners, and those who are ambitious of making a great display with circumscribed means, are too often ejected into its adoption; but a few years' experience will be generally sufficient to correct the evil; its burdens and entailments of toil and expense prove, commonly, an "open sesame" to the proper course, and their practice is corrected and reformed. In manuring lands, also, we should look more to distant results than to present profits. A piece of soil, thoroughly enriched, is a lasting treasure. Like a deposit in a solvent bank, it pays annual dividends, and by a judicious course of management will improve rather than deteriorate for years. In this department of farming, more than in any other, probably, the beneficial effects of thoroughness are convincingly displayed. — *Germantown Telegraph.*

TO DESTROY THE APHIS ON ROSE-TREES OUT OF DOORS.

In the Ladies' Companion to the Flower-Garden, under the article of Aphis, Mrs. Loudon advises to make a decoction of quassia, in the proportion of an ounce of chip to a pint of water, and dip the infected branches of roses into it. This cannot be done on a large scale; but I have found the use of the decoction so valuable, that it ought to be more generally known. My mode of using it is as follows:

Having made in the outset a small quantity in the above proportions, and tested it as a guide for my future use, I now make from two to three gallons at a time in a large iron boiler. When cold, on a fine day, throw it on your rose-bushes by means of a garden syringe, taking care to wet the under as well as the upper surface of the leaves. In two days' time, you will see thousands of the insects adhering to the leaves, but quite dead. Then syringe the bushes with plain water, using considerable force, to wash off the dead aphides. You will no doubt observe many still living, as it is almost impossible to wet them at one operation. Repeat the syringing with the decoction, and afterwards with the water.

Rose-Garden, by Wm. Paul.

REMARKS BY EDITOR N. E. FARMER. — In our endeavors to destroy insects, or prevent their depredations, it is important to learn what substances are most destructive or offensive to them. In some cases, corrosive substances are used with success, as potash water for lice in the bark of apple-trees. Again, a substance of this nature would sooner kill the tree than the insects that prey upon it.

We prepared a very strong solution of potash, probably too strong for washing the trunks of trees. We put rose bugs in it, carried them eight or ten rods, and then took them out. They were kept in a glass, and appeared well the next day. We then diluted the potash water, by adding as much more water, and applied it to the foliage of various trees and vegetables, and it killed every leaf it touched. This showed that some offensive substance, such as whale oil soap, tobacco, quassia, aloes, &c., must be used, rather than corrosives. Insects breathe through lateral pores, and oily substances close these pores and kill them.

We present for consideration the nature of the substance best adapted to the destruction of each species of insect that preys on our herbage; whether it should be corrosive, or offensive, or oily. Oily substances may be used in connection with an alkali, forming a saponaceous compound. Some offensive substances will only drive insects from one plant to another; others, as tobacco liquor, may destroy them by strangulation.

MUSIC OF INSECTS.

A sound like the humming of bees is often heard in lonely, rural retreats, among mossy dells and leafy solitudes; the poet heard this music of the groves as he penned the following couplet:—

"Not undelightful is the ceaseless hum,
To him who, musing, walks at noon."

Sounds like the humming of bees are frequently heard, though not a single insect is to be seen. The existence of these diminutive creatures—who only

appear in the evening—is said to terminate before the dawn of day: though short, it is a life of incessant pleasure. By naturalists they are now classed as coral flies, who congregate in millions, as Gardner supposes, for the pleasures of music and the dance.

It is related of Beethoven that those imitative sounds in his celebrated Pastoral Symphony were caught from nature: that he employed the violin, in that extraordinary composition, to represent the soft, fluttering stir of the insects,—the hum in a noon-tide warmth of a summer's day. He used to sit upon a stile in the environs of Vienna, a lovely, sequestered spot, and listen to the ceaseless sound of unnumbered winged insects dancing in the air.

Plutarch tells us that when Terpander was playing upon the lyre, at the Olympic games, and had enraptured his audience to the highest pitch of enthusiasm, a string of his lyre broke, and a grasshopper immediately perched on the bridge, and by its voice supplied the loss of the string, and saved the fame of the musician.

The Athenians kept those delicate creatures in cages for the sake of their song, and called them the nightingales of the nymphs. As in the case of birds, the males only sing.

PLEASURES DERIVED FROM THE CULTIVATION OF FIELDS AND GARDENS.

The cultivation of fields and gardens is one of the most delightful of all occupations, and perhaps the only one the toil of which is recompensed with much pleasure. The greater part of laborious employments confine man to his shop, or within his house; whilst he who devotes himself to agricultural pursuits always breathes a pure air, and enjoys continually the grand spectacle of nature. The azure sky is his canopy, and the earth, embroidered with flowers, his carpet. Far removed from the murky atmosphere of towns, a thousand beautiful objects present themselves to his view, and he need never want a pure spring of delight or real banquet of pleasure. Soon as the first rays of morning beam light on the earth, he rises with the lark, and hastes away to his fields, brushing, as he passes, the glistening dew-drops, and inhaling the fresh air, sweeter than the rose's perfume.

The joyful songs of the birds gladden the skies, and they express their loves in a thousand sportive sallies. Their sweet carols mark the pleasure they feel in the new day, and the full chorus swells with the praises of the God of nature, whose blessings they again receive in the returning influence of the sun, in their food, and in the sweet attractions of love and gaiety. And surely, no heart can remain unmoved amid this scene of joy and festivity; nor can the mind contemplate a more august spectacle than the perfection of God in the grandeur of his designs and the beauty of his works.

What contributes to render agriculture and gardening more particularly pleasing is the constant variety and succession of objects always presented to us, which relieve the wearisomeness of continued uniformity and undeviating sameness. We continually observe a vast variety of plants, fruits, herbs, and trees grow up under our auspices, and assuming every diversity of appearance. Nature leads her followers through a thousand flowery paths, ever diversified by new changes and fresh delight. One while we see plants just peeping above the ground, at another those which have arisen and are fully developed, and others which are in full bloom. Whichever way we direct our views, we see new beauties. The heavens above and the earth beneath contain exhaustless treasures and boundless delights.

Let those who are from necessity confined within the walls of cities sometimes emerge from their smoky atmosphere and respire a purer air in the country, where their hearts may be rejoiced with a pure and innocent pleasure, and their souls rise up to heaven in aspirations of praise and gratitude to the Author of every blessing. — *Selected.*

AGRICULTURAL SCIENCE.

The time has gone by, when Agricultural Science was a subject of derision or neglect by practical farmers. Every one must rejoice to see the rapid advance which it is making in the United States. Its greatest triumphs have been hitherto in the old world, and especially in England, where it has made a garden spot of the whole island, and enabled a mere speck on the surface of the waters to support an immense population. But even in our own country it has achieved its victories, for our farmers are every day paying more attention to the principles on which it devolves, and applying them with great success in their cultivation of the soil. This is particularly observable in some of the worn-out lands of our own state, which have been made to renew their youth, and though at one time as poor as Job in his lowest estate, yet it may now be said of them, as it was of the afflicted patriarch, that their "latter end is better than their beginning." We have the authority of one of the wisest practical farmers of the state for the opinion, that Virginia, by the advantages afforded by practical agricultural science and the enlightened and persevering employment of them, is destined not only to repair her waste places, but make them equal in fertility and beauty to the virgin regions of the Western States. — *Rich. (Va.) Repub.*

RAINY DAYS.

How much time is thrown away by some farmers when the weather will not permit them to work out doors! And how well this time might be improved! There are many days and hours of wet weather in a year, in which it is impossible to do any work on the farm; and when these are lost, as they are to many farmers of my acquaintance, they amount to a considerable sum. "Time is money," as my grandfather used to say; and further, "Take care of the pence, and the pounds will take care of themselves."

Now, if this is good advice in money matters, it will surely apply to economy in time, to those hours and half days when the rain drives us under cover.

Well, how are these hours to be best improved? I will tell you, my brother farmers. Get yourselves a set of carpenter's tools, and make a work-bench; and if you can plane a board and drive a nail, you will find enough to occupy all your spare time.

The tools will cost but five or six dollars — such as are most necessary; and then you will be able to keep your out-buildings, fences, and many of your farming implements in good repair. If your barn or stable doors break down, mend it immediately the first rainy day. If a board is loose, put a nail in it or replace it. If you want any plain, useful kitchen furniture, such as pine tables, benches, &c., take those occasions. But it is unnecessary to multiply the things that might be made or repaired in such times. Every farmer that looks around him (if he is not in the habit of so doing) will find the wood work on his place lamentably out of repair.

Besides, every farmer should accustom himself to the use of tools. When he wants a small job done, it wastes as much time often as it is worth, to go several miles after a carpenter. I know some farmers who have not a hatchet, drawing-knife, auger, plane,

or work-bench about their place. The consequence is, their jobs and repairs generally go undone, and they have nothing to do half their time in rainy weather. Is this economy? Yet such men will carry their grain five miles farther to a market where they can get two cents more on a bushel. — *Genesee Farmer.*

TO DRY A COW OF HER MILK.

Circumstances render it necessary to stop the lactescent action in cows; and when this occurs, all that is absolutely required is to make a liquor by pouring into a fresh rennet bag two quarts of pure well, spring, or rain water; reduce the quantity of the liquid, by boiling briskly, to about one quart, and strain it. Then let it cool to a lukewarm temperature, and give it as a drink to the cow. In forty-eight hours she will be dry. For some days, her food should be dry and unsucculent, no water being allowed. — *Selected.*

AMERICAN BUTTER.

Considerable shipments of butter, mostly of inferior quality, have been made this season from this port, and also from New York, to England. In referring to a public sale of some of this butter, the London Commercial Journal of March 27th says: —

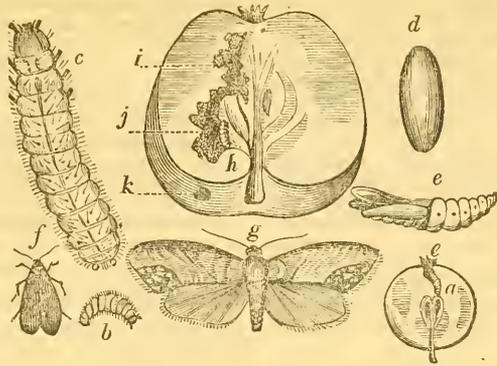
"At a public sale of American butter at Liverpool, it fetched for best sorts, [one hundred and twelve pounds,] eighty-four shillings; seconds, seventy-two to seventy-four shillings, duty paid; while inferior only sold at forty-three shillings to forty-four shillings in bond, of which the parcel chiefly consisted. The quantity arrived at the London market shows the same results, the principal part being sold for grease purposes. The American makers of butter are very far behind the Irish, English, or Dutch: from the first operation to the last, all seems to be done without system or care; the same materials would, if managed by experienced hands, fetch in this market twenty-five shillings or thirty shillings more money: there is no attention paid to the making, salting, putting, or packing.

Extract from a Letter.

"As it is probable that American butter and lard will in future seek a market in Great Britain for the surplus product, it may be well that the farmers and others should know that their interest will be to take more care in making these articles. Nothing can be superior to the rich flavor of the Ohio and other western butter, fed on prairie and other rich soils in the autumn, but even a moderately short voyage, or the approach of spring, changes the character of it into a white and rancid grease; the evil seems to be, that the buttermilk is not worked out, neither is it properly salted. The best American butter, imported this year, has sold not higher than eighty-five shillings, while the best from the continent has fetched one hundred and ten to one hundred and fifteen shillings. The latter will keep for years." — *N. Y. Ship. and Com. List.*

HORSES.

Flies are a great trouble to horses at this season. They will eat all the skin off the inside of their ears, and then feed upon the flesh, producing a great deal of pain and uneasiness. This evil may be prevented by rubbing upon the inside of their ears a little grease or oil, which should be repeated occasionally. Every merciful man who has a horse, will be "merciful to his beast," and prevent this injury.



THE APPLE-WORM IN DIFFERENT STAGES.

- a. The young larva or worm in a small apple.
 b. The full-grown worm, usual size.
 c. The same greatly magnified.
 d. The cocoon.
 e. The pupa or chrysalis state.
 f. The perfect insect, usual size.
 g. The same greatly magnified.
 h i. The passage of the worm in the fruit
 j. The larva or worm in the apple.
 k. The place of egress.

The apple-worm, or codling-moth, (*corpocapsa pomonella*) is a foreign production, and has been introduced into this country doubtless in packages of fruit trees. It is very numerous on the seaboard, and it has become common in the interior of New England and the Middle States, and it will probably spread all over the country.

Dr. Harris, author of that invaluable work, *The Insects of Massachusetts*, describes the parent of the apple-worm as a beautiful moth; the head and thorax brown mingled with gray; the four wings look like watered silk; the hind wings and abdomen are light and yellowish-brown. Its wings expand three fourths of an inch. A distinguishing mark in this insect is a large, oval, brown spot, edged with copper color, on the hinder margin of each of the fore wings.

The body of the young insect is of a whitish color, its head black. As it grows older, its body becomes flesh-colored, its head brown.

In the latter part of June and in July, these moths fly about apple-trees in the evening, and lay their eggs in the eye of the apple, sometimes in summer pears, preferring early to late fruits; the eggs hatch in a few days, and the young worms burrow in the apple, making their way, gradually, to the core of the apple. In three or four weeks, it comes to its full size, having burrowed to the core, and through different parts of the apple.

The injury from the worm produces a premature ripening of the fruit, which falls, and the insect, in a few days, makes his escape at an opening that has been used for the ejection of its excrements. On leaving the apples, the worms crawl into the chinks

in the bark of trees, or other sheltered places, which they hollow out with their teeth. Here each spins a cocoon, or silken case, as fine and white as tissue paper. Some of the worms change to chrysalids, and in a few days more turn to moths, come out, and lay their eggs for a second generation of worms in the fall.

The apple-worm is very destructive, generally; and in a year of scarcity, like the present, they injure nearly all the fruit.

As a remedy, let small animals run in the orchard and eat all the fruit as it falls; or pick up all fallen fruit, every day, and cook it for swine, or in some way destroy the worms contained in it. If old cloths be hung around the crotches of trees, the worms will take shelter therein, and may be destroyed. By carefully scraping off the loose bark of apple-trees in the spring, many chrysalids will be destroyed.

POTATO RUST.

The potato rust has made its appearance in this quarter to a small extent. But from present appearances, it is thought it will not injure the crop materially; but it is hardly time to know how injurious it may prove. If the potato crop should be cut off this year, the hay crop being already reduced one half by the drought, there will be more suffering from destitution in this county, and in the Province of New Brunswick, than has been experienced for forty years past. — *Calais Advertiser*.

APPLES AS AN ARTICLE OF HUMAN FOOD.

The importance of apples, as food, has not hitherto been sufficiently estimated in this country, nor understood. Besides contributing a large portion of sugar, mucilage, and other nutritive matter, in the form of food, they contain such a fine combination of vegetable acids, abstractive substances, and aromatic principles, with the nutritive matter, as to act powerfully in the capacity of refrigerants, tonics, and antiseptics; and when freely used at the season of ripeness, by rural laborers and others, they prevent debility, strengthen digestion, correct the putrefactive tendencies of nitrogenous food, avert scurvy,

and probably maintain and strengthen the powers of productive labor."

The operators of Cornwall, in England, consider ripe apples nearly as nourishing as bread, and more so than potatoes. In the year 1801, a year of scarcity, apples, instead of being converted into cider, were sold to the poor; and the laborers asserted that they could stand their work on baked apples, without meat; whereas, a potato diet required either meat or fish.

The French and Germans use apples extensively; indeed, it is rare that they sit down, in the rural districts, without them in some shape or other, even at the best tables. The laborers and mechanics depend on them, to a very great extent, as an article of food, and frequently dine on sliced apples and bread. Stewed with rice, red cabbage, carrots, or by themselves, with a little sugar and milk, they make both a pleasant and nutritious dish. — *American Agriculturist*.

REMARKS BY EDITOR N. E. FARMER. — Apples are not only a valuable article as nutritious food, but in various preparations they are a luxury, rendering many dishes far more palatable, and if they sharpen the appetite, and induce the thoughtless to indulge rather freely in luxuries, they are not liable to injure the system like dishes of rich or concentrated food. They are not only harmless alone, and when compounded with other materials for food, but they are in almost all preparations highly conducive to health.

FRUIT TREES BY THE ROADSIDE.

The practice of setting out fruit trees by the roadside cannot be too highly recommended. In many parts of Europe this practice is general, and the fatigued traveller acknowledges the well-timed hospitality thus afforded him. The excuse is often made that the fruit will be stolen; but if the practice were general, the amount of fruit taken by wayfarers would only be what common hospitality would freely grant; and in Germany every third tree, by custom, may be *tabooed*, (the owner of the adjoining farm ties a piece of rag to one of the lower limbs of the tree,) and no traveller will touch it. Travellers inform us that no reward will tempt a German stage-driver to regale his passengers with fruit from a marked tree — two out of three thus being left for their use, if desired, renders the selected tree free from the chance of being used. The amount of fertilizing materials continually wasted upon roads would be rendered available by such a practice, and nothing but extreme selfishness will prevent the use of these materials for public benefit. Many of the larger sorts of fruit trees are highly ornamental and afford fine shade, while the use of fruit trees alone for shade, like the display of costly mansions, only excite the poor to envy, without adding materially to their comfort or health. — *Working Farmer*.

ADVANTAGES OF TREES.

Cattle thrive much better in fields even but moderately sheltered with trees than they do in an open exposed country. An Italian (Gautieri) has enumerated and illustrated the advantages in point of climate which tracts of country derive from woods and forests. "These," he says, "are arresting the progress of impetuous and dangerous winds; maintaining the temperature of the air; regulating the seasons; lessening intense cold; opposing the formation and increase of ice; moderating intense heats; producing abundance of water in the rivers; dis-

charging the electricity of the atmosphere; opposing a barrier to washing away or undermining banks; preserving from inundations; preserving the soil on hills and mountains." — *Selected*.

FEEDING CATTLE.

An English writer observes that two great points in feeding cattle are regularity and a particular care of the weaker individuals. On this last account there ought to be plenty of trough or rack-room, that too many may not feed together; in which very common case the weaker are not only trampled down by the stronger, but they are worried and become cowed and spiritless; than which there cannot be a more unfavorable state for thrift; besides, these are ever compelled to shift with the worst of the fodder. This domineering spirit is so remarkably prevalent among horned cattle, that the writer has a hundred times observed the master-beasts running from crib to crib, and absolutely neglecting their own provender for the sake of driving the inferior from theirs. This is, much oftener than suspected, the chief reason of that difference in a lot of beasts, after a winter's keep. It is likewise, he says, a very common and very shameful sight, in a dairy of cows, to see several of them gored and wounded in a dozen places, merely from the inattention of the owner, and the neglect of clipping the horns of those that butt. The weaker animals should be kept apart; and in crib-feeding in the yard, it is a good method to tie up the master-beasts at their meals.

Dr. Deane says, "There should be more yards than one to a barn where divers sorts of cattle are kept. The sheep should have a yard by themselves at least; and the young stock another, that they may be wholly confined to such fodder as the farmer can afford them." — *Yankee Farmer*.

SOMETHING TO THINK OF.

At West Point, our government long ago established a military school. Young men are selected from different states every year, sent there, and educated at public expense. Every cadet that graduates there, costs the United States' government from four to five thousand dollars.

More than four millions of dollars have been bestowed by the United States upon that institution; and all for what?

Well, what then? Before Washington left the presidency, he earnestly recommended Congress to establish a Board of Agriculture, or to take some other measures to foster that peaceful but leading and important interest. They have been since repeatedly urged to lend the strong arm of government to the elevation and encouragement of that neglected calling. What have they done? Nothing. Millions and millions have been expended to learn young men how to fight; not the "first red cent" to teach them the noble, bread-giving, world-sustaining service and art of agriculture! — *Maine Farmer*.

SAGACITY OF A GREYHOUND AND POINTER.

A gentleman in the county of Sterling kept a greyhound and a pointer, and being fond of coursing, the pointer was accustomed to find the hares, and the greyhound to catch them. When the season was over, it was found that the dogs were in the habit of going out by themselves, and killing the hares for their own amusement. To prevent this, a large iron ring was fastened to the pointer's neck by a leather collar, and hung down, so as to prevent the dog from

running or jumping over dikes, &c. The animals however continued to stroll out to the fields together; and one day the gentleman, suspecting all was not right, resolved to watch them, and, to his surprise, found that the moment they were unobserved, the greyhound took up the iron ring in his mouth, and carrying it, they set off to the hills, and began to search for hares as usual. They were followed, and it was observed, that, whenever the pointer scented the hare the ring was dropped, and the greyhound stood ready to pounce upon poor puss the moment the other drove her from her form, but that he uniformly returned to assist his companion when he had accomplished his object.—*Yankee Farmer.*

REMEDY FOR LICE ON ANIMALS.

Farmers often incur serious losses among domestic animals, (especially the younger portion,) through the fatal instrumentality of lice — as they are called in common parlance. From some cause or other, they suddenly appear in countless numbers upon some favorite calf or calves, or colt or colts, and, despite of washings and rubbings and sundry other means resorted to, the afflicted animal generally sinks under an affliction, insignificant in detail, but powerful in the aggregate. Many are of the opinion that there has no harmless, yet efficient remedy, as yet been discovered. Tobacco juice, it is known, will kill vermin; but it will also most surely kill the subject, by having its baneful properties absorbed into the system. I am happy to inform your readers that a remedy possessing every requisite property has recently come to my knowledge, which I herewith communicate. It may not be new to all, but of one thing I am certain, I knew nothing of it till made acquainted in the following manner:—

Last spring I purchased a beautiful water-spaniel puppy, and took him home to raise. He had not been in my possession long when I noticed he kept up an almost incessant scratching, which I attributed to fleas. A neighbor of mine, however, being present one day, hinted that my dog was probably more or less affected with lice. I examined, and, to my utter astonishment, I found him literally covered with them. My friend told me what to do to rid him of them, that he had tried it, and knew it to be harmless, yet effectual. It was simply to rub him well, two or three times every three or four days, with melted hog's lard. I did so, and in two weeks' time there was not one of that vast army of vermin left to tell the tale; and what is more, it had no bad effect upon my dog.

The philosophy of it, I believe to be something like this: Naturalists assert that some animals inhale air, not by means of lungs, but through the pores of the skin, and that the louse belongs to this species. Assuming this to be true, I suppose that the remedy used was absorbed into, and completely filled up, the lungs or respiratory apparatus of the vermin, and effectually closed up the avenues of life, and thus produced devastation and death to countless thousands. M. H. A.

PITTSFIELD, ILL., 1849.
—*Philadelphia Dollar Newspaper.*

MICROSCOPE DISCOVERIES.

Dr. Carpenter noticed particularly the formation of the great beds of chalk, several hundred feet thick, which substance is composed entirely of minute shells that are invisible to the naked eye. The different cellular structure of shells, and the peculiar organization of the teeth of animals, Dr. Carpenter could trace, even the invisible fragment of a shell or

of a tooth, the class, and sometimes even the species, to which the fragments belonged. Referring to the general cellular structure of all organizations, he says that this structure could be seen alike in the leaf, in the bones, in the muscles, and in the blood; That all life seemed to originate in single cellular developments, but notwithstanding this apparent similarity in the original cells, there is an inherent, though as yet undistinguishable difference, which determines the structure of the plant and of the animal. The bodies of the animals which inhabited the shells composing the chalk are still enclosed within them, being the mummies of a former world.—*Scientific American.*

TO CURE SWELLING OF THE THROAT IN HOGS.

In order to contribute to the usefulness of your valuable periodical, and to inform the public of what I find from experience to be an infallible cure for a certain disease with hogs, viz.: the swelling of the throat, I herewith send you a recipe 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 a pint, and a table spoonful of hog's 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.—*Farmer's Register.*

SEPTEMBER.

Be most exceedingly careful to gather all the apples, pears, cherries, &c., which fall prematurely from your trees, and are technically called windfalls, and boil them for your swine: bury them a little this side of the centre of gravity, or so dispose of them as to destroy the worms they contain; otherwise the plague of wormy fruit will, for aught that I know to the contrary, be entailed on you and your heirs for aye. Your hogs will fatten the faster if you give them every day or two a little charcoal. They will take *quantum sufficit* of it as a medicine to neutralize the acid of their stomachs, and you have only to place it where they can get at it, and every hog will be his own doctor, and charge nothing for his fees. If you feed your hogs with old corn, you will soak, boil, or grind it, otherwise a part will not be digested. Their food will go the farther if permitted to ferment till it has a sweetish taste, but should be given to them before it becomes decidedly sour. You may as well have a hole in your pocket for your money to escape from, as a drain to lead away the wash of your barnyard. True, it may spread over your grass land, and do some good, but it will give a flood of manure to some parts; a scanty rill to other parts, and some will go to enrich the highway, &c.—*Selected.*

ALPINE PLANTS.

Alpine plants are not, as commonly supposed, of a hardy nature, but the reverse. On the Alpine mountains they are deeply buried in snow during the winter — covered, as it were, with a pile of warm blankets, and thus effectually secured from the frost; and when the summer arrives, which is both later and much more rapid in its advance than with us, they are suddenly exposed, not to a temperature such as that of our spring, but to heat equal to that of the hottest of our dog-days.

Domestic Department.

FEMALE TACT. — “When a woman is possessed of a high degree of tact, she sees, as by a kind of second sight, when any little emergency is like to occur, or when, to use a more familiar expression, things do not seem likely to go right. She is thus aware of any sudden turn in conversation, and prepared for what it may lead to; but above all, she can penetrate into the state of mind of those she is placed in contact with, so as to detect the gathering gloom upon another's brow, before the mental storm shall have reached any formidable height; to know when the tone of voice has altered; when any unwelcome thought shall have presented itself, and when the pulse of feeling is beating higher or lower, in consequence of some apparently trifling circumstance which has just transpired. In these, and innumerable instances of a similar nature, the woman of tact not only perceives the variations which are constantly taking place in the atmosphere of social life, but she adapts herself to them with a facility which the law of love enables her to carry out, so as to spare her friends the pain and annoyance which so frequently arise out of the mere mismanagement of familiar and apparently unimportant affairs. And how often do these seeming trifles — these accidental betrayals of what there would have been no duplicity in concealing — how often do these wound us more than direct unkindness!”

BOILING POTATOES. — The correspondent of the London Times says, “The following method of dressing potatoes will be found of great use at this season of the year, when skins are tough and potatoes are watery. Score the skin of the potato with a knife lengthways and across, quite around, and then boil the potato in plenty of water and salt, with the skin on. The skin readily cracks when it is scored, and lets out the moisture, which otherwise renders the potato soapy and wet. The improvement to bad potatoes by this method of boiling them is very great; and all who have tried it, find a great advantage in it, now that good potatoes are very difficult to be obtained.”

Boys' Department.

BE KIND TO ANIMALS. — There are few things more disgraceful in children, than to be cruel to those harmless creatures which are unable to defend themselves. If I see a child pull off the wings of an insect, or throw stones at a toad or frog, or take pains to set his foot upon a worm, I am sure there is something wrong about him, or that he has not been well instructed.

There was once a boy who loved to give pain to every thing that came in his way, over which he could get any power. He would take the eggs from the mourning robin, and torture the unfledged sparrow; cats and dogs, the peaceable cow, and the faithful horse, he delighted to worry and distress. I do not like to tell you of the many cruel things that he did. He was told that such deeds were wrong. An excellent lady, with whom he lived, used to warn and reprove him for his evil conduct. But he did not reform. When he grew up, he became a soldier. He was never sorry to see men wounded, and blood running upon the earth. He became so wicked as to lay a plan to betray his country, and to sell it into the hands of the enemy. This is to be a

traitor. But he was discovered, and fled. He never dared to return to his native land, but lived despised, and died miserably in a foreign clime. Such was the end of the cruel boy, who loved to give pain to animals. His name was Benedict Arnold; he was born at Norwich, Ct., in America, and the beautiful city of his birth is ashamed of his memory. — [London] *S. S. Teacher's Offering.*

Health.

DYSENTERY. — This disease will generally yield to various astringent medicines, some of which are known to almost every family. But, occasionally, it prevails as an epidemic, and is very malignant, and sometimes fatal. In such cases, it bids defiance to all common medicines, and resort must be had to those of a more powerful nature.

For an obstinate case of the dysentery, we consider charcoal powder one of the safest and most efficacious remedies. Some years ago, a friend had a child that lingered long with an obstinate case of dysentery, until it became emaciated, and so debilitated that the attending physician concluded that any further medical aid was useless, as it was a hopeless case. Some person suggested to the desponding parent that charcoal would be a remedy, and it was administered, and the child unexpectedly recovered.

This and other similar cases, with the consideration of the peculiar properties of charcoal, as admirably adapted to this purpose, have induced us to use it, in our family, for dysentery and protracted cases of summer complaint in children, and we have always found it a sure remedy; but we would remark that we have not had to treat very severe cases; not having any of very violent attack, and by the use of this remedy, preventing any cases of long standing.

Having had no definite rules for preparing this medicine, nor prescriptions for a dose, we have followed our own judgment, as follows: Take some pieces of white pine, — which every one can obtain, as most boards are made of this timber, — perfectly pure, being free from knots or discoloration; burn them till they begin to fall to pieces, then quench them. Crumble this charcoal upon a plate, and mix with it just honey enough to make a paste, if the patient can take honey; if not, or if it is not convenient, use molasses or lard. When made into a paste, which prevents the charcoal flying away, rub it thoroughly on the plates with a case knife, until it is ground as fine as possible. Add some more honey or molasses, and give it alone, or in warm water, or herb tea. To nursing infants, give a teaspoonful for a dose; to adults, a tablespoonful. If it does not check the disease, repeat in light doses.

In very severe cases of dysentery, the inner coat of the bowels sloughs off, and the excoriated intestines bleed and are very tender. As the foul matter should be removed, it is not always advisable to stop the discharges immediately, by the most powerful astringents; therefore it is better to give a light dose of some gentle laxative with the charcoal. Honey,

molasses, and lard are all laxatives, and when the recent discharges have been very foul, it may be well to give very light doses of castor oil, with the charcoal. Give also a tea of raspberry leaves, for inflammation of the bowels, and light doses of hot drops, to relieve pain, which also checks the disease, and promotes a healthy action of the bowels.

We use white pine, and grind it fine, that there may be no grit to irritate the bowels. We use the charcoal immediately after being burned, or that which has been recently burned and kept corked tight in bottles; as freshly-burned charcoal is a powerful absorbent of gases, particularly of ammonia and foul odors, and if it becomes saturated, it will have less effect as a medicine.

Charcoal is a powerful antiseptic, and is excellent to prevent mortification, to which the intestines are tending, as they become putrescent, in long and severe cases of this disorder. Charcoal is one of the best purifiers in nature. Tainted meat is purified and made sweet by boiling it in a pot with some pieces of charcoal. Mortification has been cured by charcoal poultices. Charcoal dust is a powerful styptic, and is used with success in stopping blood. It also corrects acidity in the stomach. These are its chemical qualities, and it may have other valuable properties. Mechanically, charcoal dust is loosening, like sand, and is, therefore, less liable to produce too sudden a stoppage of the lax.

Mechanics' Department, Arts, &c.

ANOTHER WHITEWASH. — The editor of the Horticulturist, in answer to the queries of a correspondent, gives the following recipe for a whitewash. We have published a good many recipes for this purpose, but believe we have never published one exactly like this. He recommends it as most excellent, as a cheap and durable wash for wooden fences and buildings. He thinks that it owes its durability to the white vitriol which it contains.

Take a barrel and slake a bushel of freshly-burned lime in it, by covering the lime with boiling water. After it is slaked, add cold water enough to bring it to the consistency of good whitewash. Then dissolve in water, and add one pound of white vitriol (sulphate of zinc) and one quart of fine salt. To give this wash a cream color, add one half pound of yellow ochre, in powder. To give it a fawn color, add one fourth of a pound of Indian red. To make a handsome gray stone color, add one half pound of French blue, and one fourth pound of Indian red. A drab will be made by adding one half pound of burnt sienna, and one fourth pound of Venetian red.

For brick or stone, instead of one bushel of lime, use a half bushel of lime and half bushel of hydraulic cement.

These washes are very useful in preserving buildings, fences, &c., to which they are applied; and although it may be renewed much oftener than oil paints, they give a very neat appearance to farms, where they are applied to the buildings, gates, &c. As their cost is trifling, it is strange that they are not used more often than they are.

NEW USES FOR GRANITE. — A Mr. McDonald, in Scotland, has discovered a method of calcining granite to a fine clay of extraordinary strength for pot-

tery, especially for making water pipes, some of which are as large as eighteen inches bore. And a discovery has been made in Ireland, that the granite, on an extent of seventy miles, in Wexford, contains so large a proportion of potash that the alkali can be extracted by a chemical process, so as to become an article of commerce. It is estimated that there are two thousand tons of potash, the produce of America, consumed annually in England and Scotland, the present cost of which is forty pounds per ton; and that, by working the granite of Dalkey, which extends inland to Sandymount, the same quantity could be extracted by means of the capital of ten thousand pounds, and sold at twenty pounds per ton, yielding a revenue of forty thousand pounds to remunerate the capitalists and diffuse the blessings of employment among the people, and not only render it quite impossible for the Americans to compete with the Irish, but really push an Irish trade in potash into the American continent. — *Dublin Evening Post.*

CULTIVATION AND PRESERVATION OF "WOOD-LOTS."

EDITORS OF THE CULTIVATOR: I can stand it no longer. The inconsiderate clearing of the woodlands of New England by our fathers, without regard to the selection of those lands suitable for arable and grazing purposes, finds an apology in the fact that forests, generally, were an encumbrance to them. The greater thoughtlessness and improvidence of their sons, however, in still persisting in the practice, while we have more lands already cleared than a proper and profitable husbandry is bestowed upon, is, to me, a painful and surprising matter. Besides being ruinous to the present owner, it is a perfect "devil take the hindmost" policy for the sons. Go where we will, we are compelled to look upon rough, inaccessible lands, and tops and acclivities of hills, which have been swept of their natural covering and fertility, and turned into pastures affording but scanty returns for the hard labor of the animals attempting a subsistence thereon, and still smaller returns to the proprietor. There is scarcely a farm in this section but has acres of this kind of land that would have been worth five times, yes, in many cases, ten times as much as they now are, had a second growth of wood been permitted to run up on them.

The operation of clearing and burning a large tract of hill-side woodland, has been going on within my observation for a few years past. It has been of the genuine, old-fashioned sort. A large piece is chopped over, each winter, and the wood and timber marketed. The next August, a heavy fire burns up the vegetable mould on or near the surface, and the ashes left, operating as a powerful and unnatural stimulus on so light a soil, only cause it to give up its organic matter, its fertility, the more speedily. Rye is sown, and yields so fine a crop that another of the same kind is put in the next fall, and possibly a light sprinkling of grass-seed with it. At the end of five years, the land is so far exhausted, that five acres will not keep an old sheep alive through the summer. Then, again, a valuable tillage-field, which has had the protection of this wood from bleak winds, is now exposed to every northern blast, which, in this climate, is a serious consideration. Had the inconsiderate owner just taken off his wood, and "therewith been content," leaving his hill-side to be covered with another growth of trees, he could have sold it to-day, if he wished, for twice what it will now bring.

Ten years ago, I cut the wood off a long stretch of side-hill, and, in my inexperience, burnt over a portion of it for pasturage. The remainder was left to grow up again to wood. Many of the young trees

are six to eight inches through; they are all very straight and thrifty, and I value one acre of this land more than five acres of that which is in pasture. I shall not again permanently clear up my steep hill-sides.

At the solicitation of a railroad friend, a short time since, I accompanied him into the country directly south of this, to examine and estimate the value of some "wood-lots." I was forcibly struck with the amount of rugged, barren land, inaccessible for agricultural purposes, which had been thrown into open country, even by the present owners. Had a second growth of wood been permitted to run up on the land, instead of subjecting it to the burning and cropping process, it would have been now worth far more to the owners; for a railroad is tapping that country, with its large and clamorous demands for wood and timber. Riding along with an old inhabitant of one of the towns visited, he pointed out a wood-lot which was cut over twenty years since, and suffered to grow up again to wood, contrary to the usual custom. It was sold at auction, a short time since, for thirty-four hundred dollars. It would not have brought over eight hundred dollars, had it been in pasture from the time it was cleared.

Warm hill-sides, having an eastern or southern slope, send up a second growth of wood with great rapidity. Although they may not eventually support so heavy a growth as strong, level land, they will yet produce all the wood they are capable of sustaining, much sooner. A friend directed my attention, the other day, to a tract of land, with an eastern slope, in a neighboring town, which was cleared of an original growth of wood, twenty-five years ago, and left to itself to produce another growth from the sprout. The land, with its present standing wood, was appraised a year or two since, at fifty dollars an acre. Ten dollars an acre is all that similar land, in pasture, in that vicinity, has ever been worth. By the application of a little arithmetic, then, we find that the increase of this second growth of wood has been equal to sixteen per cent. interest, per annum, on the worth of the land, without a dollar's expense for the cultivation, — that is, ten dollars, at sixteen per cent. simple interest, for twenty-five years, amounts to forty dollars; to which add the principal, the worth of the land, and we have fifty dollars, the appraised present value, per acre.

Take another view. The importance of a due proportion of wood in equalizing moisture, and preserving the constancy of our small springs and brooks, as well as restraining, in a great measure, the sudden rise and overflow of our rivers, is well known to observing men. Several fine springs and little brooks, which were familiar friends in boyhood, have either entirely disappeared, or are only seen for a season in the spring.

"In wet seasons, the decayed leaves and spongy soil of wood lands retain a large proportion of the falling rains, and give back the moisture, in time of drought, by evaporation, or through the medium of springs. They thus both check the sudden flow of water from the surface into the streams and low grounds, and prevent the droughts of summer from parching our pastures and drying up the rivulets which water them. On the other hand, where too large a proportion of the surface is bared of wood, the action of the summer sun and wind scorches the hills which are no longer shaded or sheltered by trees, the springs and rivulets that found their supply in the bibulous soil of the forest disappear, and the farmer is obliged to surrender his meadows to his cattle, which can no longer find food in his pastures, and sometimes even to drive them miles for water. Again, the vernal and autumnal rains, and the melting snows of winter, no longer intercepted and absorbed by the leaves or the open soil of the woods, but falling every where upon a comparatively

hard and even surface, flow swiftly over the smooth ground, washing away the vegetable mould as they seek their natural outlet, fill every ravine with a torrent, and convert every river into an ocean." — Address of Hon. Geo. P. Marsh.

Several successful attempts have been made within my observation, in improving rugged and exhausted lands by planting them out to trees. Within sight, while writing, is a knoll that has been completely renovated by a plantation of the white locust. It was originally a coarse, worthless gravel, barren of herbage of any kind. I remember that the proprietor was laughed at by his neighbors for attempting to grow trees on his barren gravel. The locusts got root, however, and although their growth was slow and feeble, they gradually formed a soil by the annual shedding of their leaves; and as the soil became thus strengthened, their growth became more vigorous, new shoots sprang up in all directions from the roots; and after a while, clover and other grasses began to appear on the open ground. I have been curious to observe the gradual improvement of this land. Last summer, I noticed that the grass was very luxuriant, and would have yielded at the rate of a ton or more of hay to the acre, in the open spots. The locust wonderfully endows a poor soil with new energy and fertility. It seems to make its demands for nourishment more largely upon the atmosphere than any other tree, and gains foothold in soils absolutely barren of fertility. Then, again, its leaves are small, with very rough edges, lying perfectly still where they fall, while those of most other trees are blown about by the winds, collecting in hollows or in large heaps.

In my notice of Mr. Rice's farming, last year, I remarked that he ploughed up a large tract of unproductive hill-side, several years ago, and planted it with chestnuts, in rows four feet apart every way. The first sprouts coming up rather crooked and scrubby, he went over the field, and cut them down close to the ground, which caused new sprouts to shoot up straight and vigorous. The trees are very thrifty, completely shade the ground, and grow more and more rapidly as the soil becomes strengthened by the annual deposit of leaves. So well satisfied is he with the experiment, that he is now placing other worthless lands in a similar course of improvement.

The late Hon. John Lowell, the first and most zealous advocate for improvements of this kind in New England, planted three acres of waste land on his estate at Roxbury, Mass., to a variety of forest trees, — the whole value of the land not being ten dollars per annum.

In a communication upon the subject, he says, "The land was about half of it ploughed and kept open with potatoes for two years, and then abandoned to the course of nature. The pines were taken up out of the forest with great care, not more than five feet high. Wherever I had the capidity or impatience to introduce a larger tree, I either lost it or it became sickly. In some places I planted acorns; and as to my hard wood forest-trees, transplanted from the woods, finding they looked feeble and sickly when they shot out, I instantly sawed them off at the ground or near it. This required some resolution, but I have been abundantly paid for it.

"The result of this experiment is this — that in a period of from thirteen to fifteen years, I have raised a young, beautiful, and thrifty plantation, comprising almost every variety of tree which we have in Massachusetts, which are now from twenty-five to thirty-five feet high, and some of which, the thricest white pines, actually measure from nine to twelve inches in diameter. The loppings and thinning out of these trees, now furnish abundance of light fuel for summer use; and upon as accurate a calculation as I am able to make, I am convinced that the present growth, cut down at the expiration of fourteen

years from the time of planting, would amply pay for the land at the price it would have brought."

Mr. S. Brown, in a communication to the Boston Cultivator, says, "I have one acre of land which, thirty years ago, was not worth more than ten dollars; I have no recollection of there being a tree upon it, with the exception of one apple-tree, and some scattering bushes; the appearance of the soil was such as to forbid any attempt at cultivation, and my cattle have rambled over it from that day to this; in the mean time, the young pines voluntary sprung up, and became a forest; and now, I would not thank any man to pay me sixty dollars for the standing wood on that acre. Now, if any man can tell me how to improve such land to better advantage, I would thank him for the information."

Mr. Webster has a great variety of thrifty, promising young forest-trees on his estate at Marshfield, which he has raised by planting the seeds. There are several reasons for preferring this mode of cultivation to that of transplanting. The expense of planting seed is less than that of transplanting trees; the trees will be straighter and more vigorous; they neither require staking nor watering; and at the end of eight or ten years they will ordinarily have acquired a much larger growth than trees transplanted at the same time.

The success in attempting improvements by planting waste or exhausted lands to wood and timber, will very much depend upon choosing those kinds of trees that are most naturally adapted to the soil. Professor Johnston has some very interesting remarks upon this point, a part of which I will venture to quote. Speaking of the improvements going on in Europe, in renovating exhausted lands by planting trees, he says, —

"The most precise observations on the subject with which I am acquainted, are those which have been made in the extensive plantations of the late duke of Athol. These plantations consist chiefly of white larch, and grow upon a poor, hilly soil, resting on gneiss, mica-slate and clay-slate. In six or seven years, the lower branches spread out, become interlaced, and completely overshadow the ground. Nothing, therefore, grows upon it till the trees are twenty-four years old, when the spines of the lower branches, beginning to fall, the first considerable thinning takes place. Air and light being thus readmitted, grasses spring up, and a fine sward is gradually produced. The ground, which previously was worth only nine pence or one shilling [rent:] per acre as a sheep pasture, at the end of thirty years becomes worth from seven shillings to ten shillings per acre.

"On the soil planted by the duke of Athol, the larch shot up luxuriantly, while the Scotch fir lingered and languished in its growth. Thus the quantity of leaves produced and annually shed by the former was vastly greater than by the latter tree. Had the Scotch fir thriven better than the larch, the reverse might have been the case, and the value of the soil might have been increased in a greater proportion by plantations of the former tree.

"In regard to the relative improving power of the several species of trees, the most rational, natural rule, by which our practice should be guided, seems to be contained in these three propositions: —

1. That the soil will be most improved by those trees which thrive best upon it;
2. Among those which thrive equally, by such as yield the largest produce of leaves; and,
3. Among such as yield an equal weight of leaves, by those whose leaves contain the largest proportion of inorganic matter — which bring up from beneath, that is, and spread over the surface in largest quantity, the materials of a fertile soil.

"The mode in which the lower branches of the larch spread out and overshadow the surface is not without its influence upon the ultimate improvement

which the soil exhibits. All vegetation being prevented, the land, besides receiving a yearly manure of vegetable mould, is made to lie for upwards of twenty years in uninterrupted naked fallow. It is sheltered also from the beating of the rain-drops, which descend slowly and gently upon it, bearing principles of fertility, instead of washing out the valuable saline substances it may contain. Beneath the overshadowing branches of a forest, the soil is also protected from the wind; and to this protection Sprengel attributes much of that rapid improvement so generally experienced where lands are covered with wood. The winds bear along particles of earthy matter, which they deposit again in the still forests; and thus gradually form a soil even on the most naked places."

Thousands of acres of waste lands in New England, entirely unprofitable to the owners and to community, might, by judicious planting with trees, be redeemed from their sterility, — thus adding, in effect, to the territorial extent as well as wealth of the country; besides in many cases fivefold the value of individual estates thus planted. Numerous instances might be given in proof of this statement.

It is worthy of separate and particular consideration that our country is fast becoming penetrated in every direction by railroads, whose consumption of wood is so enormous that we must look well to our forests, or they will vanish. The facilities of transportation which they afford will induce a greater demand for lumber and stuff for turning purposes, for the manufactories near the sea-board. Thus new and greater inducements for the cultivation and preservation of woodlands are yearly becoming developed, urging our farmers to awake to the importance of this subject.

In treating this topic at this time, I have chosen to give a somewhat desultory statement and citation of facts and principles which are so palpable as to come within the observation of every one, rather than a methodical and formal essay; hoping by this means the more surely to attract the attention of the practical farmer.

F. HOLBROOK.

BRATTLEBORO', VT., Feb. 1849.

PHYSICAL GEOGRAPHY.

Of all modern sciences, the science of the globe has made the most rapid, the most remarkable, and the most important progress. Bacon makes the fine remark, that while the works of man advance by successive additions, the works of nature all go on at once; thus the machinist adds wheel to wheel, and spring to spring, but the earth produces the tree, branch and bark, trunk and leaf, together. There is something analogous to this combined operation in physical geography: a whole crowd of remarkable discoveries seem to have burst on us at once, expressly designed to invigorate and impel our progress in geographical science. Thus our century has witnessed new phenomena of magnetism, new laws of heat and refrigeration, new laws even of the tempest, new rules of the tides, new expedients for the preservation of health at sea, new arrangements for the supply of fresh food, and even for the supply of fresh water by distillation, and all tending to the same object — the knowledge of the globe.

The use of steam, to which modern mechanism has given almost a new existence, and certainly a new power — the conquest of wind and wave by the steam ship, and the almost miraculous saving of time and space by the steam carriage; the new necessity of remote enterprise, originating in the urgency of commercial and manufacturing difficulties; the opening of the thousand islands of the Indian Archipelago, till now known to us as scarcely more than the seat of savage life, or the scene of Oriental fable;

the breaking down of that old and colossal barrier of restrictions and prejudices, which, more than the wall of China, excluded England from intercourse with a population amounting to a third of mankind; and most of all, those vast visitations of apparent evil, which the great Disposer of things is evidently transmuted, year by year, into real good, by propelling the impoverished multitudes of Europe into the wildernesses of the world — all exhibiting a stupendous combination of simple means, and not a less astonishing convergency to the one high purpose, the mastery of the globe — place physical geography at the head of the sciences essential to the happiness and power of human kind.

SETTING FENCE POSTS.

I would say to those of my farming friends who have fence posts of oak, cedar, or other wood to set, that they should be thoroughly seasoned, and the lower parts, intended to be inserted in the soil, well charred. A fire of shavings may be kindled, and the ends of the posts, placed so as to be carbonized by its action, are easily prepared at the rate of twenty or more at a time. Charred posts last for a much greater length of time, in the same soil, than those which are not charred. — *Germantown Telegraph*.

ACKNOWLEDGMENTS.

From Mr. A. Lackey, Jr., Marblehead, Eng., Wheat plums, which are of a good size, handsome, and of a fine quality. As it is a good bearer, it is excellent for the market or private garden. Also Large Black Imperial plum; very large and showy, the quality middling. Mr. L. has paid great attention to collecting, experimenting on, and comparing a great variety of plums, and is thus rendering essential service to the community.

Of Mr. Henry Vandyne, Cambridgeport, specimens of Prince's Yellow Gage plum. This is a sweet, luscious plum, and among the best of its season. Mr. V. has a fine collection of plums, and he furnishes, at our horticultural shows, specimens that do him much credit as a cultivator.

From Mr. Charles H. Pendleton, Pendleton Hill, Ct., a specimen of Pendleton's Early York pear. We find this in appearance, texture, and quality, precisely like the Dorr pear, described in the American Fruit Book; but the size is smaller. The Dorr pear, which we received from Colonel Chase, Cornish, N. H., is probably the same as the Early Sweet, cultivated by Mr. Pinneo, of Hanover, N. H. It is said to be a seedling from pears brought from Connecticut. It is doubtless the same variety as Pendleton's Early York, or a seedling from it, of the same, or nearly the same characteristics. The Dorr pear is a great grower, and very productive, very hardy, and adapted to northern culture. The fruit is large, fair, handsome, and of middling quality, being sweet and rather dry. Ripens from the first to the last of August. As this variety is productive and pleasant, and comes in early, when there is but little good fruit, and the tree has valuable properties, we think that it would be profitable for the market.

From Mr. Wm. O. Noyes, Greenland, N. H., pears for a name. We think it is a native, not generally known. It is sweet and very pleasant.

FARMER'S HYMN.

God of the hills and verdant plains,
I bless thy ruling hand;
For drifting snows and gentle rains
Are sent by thy command.

The opening spring is decked by thee
With each delightful flower,
And every leaf and bud I see
Bear impress of thy power.

The ripening summer's burning sun,
The winter's piercing cold,
The changing seasons, as they run,
Thy wisdom, Lord, unfold.

The joy that centres in my cot,
No less thy wisdom owns; —
With rural happiness my lot,
I cannot envy thrones.

Love dwells within my peaceful breast
At every morning's dawn;
And when the sun sinks in the west,
My cares are all withdrawn.

Although secluded from the mart
Where crowd the thoughtless gay —
Where, in the scenes that vex the heart,
Men waste their lives away —

Beside the hill, the purling brook,
Glad nature's fond retreat,
With gratitude to thee I look,
And songs of joy repeat.

For lot so blest, my voice I raise,
Almighty God, to thee; —
Thou needest not an angel's praise,
Much less such praise from me.

But I will bless thy bounteous hand
For all thy gifts bestowed; —
Before my heart could understand,
Ten thousand thanks I owed.

THE OLIO.

HOME. — The object of all ambition should be, to be happy at home. If we are not happy there, we cannot be happy elsewhere. It is the best proof of the virtues of a family circle, to see a happy fireside.

Horne Tooke, being asked by George III. whether he played cards, replied, "I cannot, your majesty, tell a *king* from a *knave*."

EVERY-DAY ABSURDITIES. — To attempt to borrow money on the plea of extreme poverty. — To believe that your own relatives are the best friends you will ever meet with.

He who knows himself best esteems himself least.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I. SATURDAY, SEPTEMBER 15, 1849. NO. 20.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

KEEP THE PREMISES CLEAN.

EVERY cultivator should keep his premises as clean as possible, for the important purposes of saving manure and promoting health. Some discerning persons remark that in the hot summer, while vegetation is in a flourishing condition, it is more healthy in the country than in the city, but the reverse is the case in September and October, as at this season many vegetable productions have come to maturity and are decaying, filling the air with noxious gases and odors; hence arise fevers, dysentery, and other complaints, which are more common in the country early in fall. We give this view of the subject, which some have presented, and we will make a few remarks on subjects that claim the particular attention of every cultivator, whether this view be correct or not.

Keep the premises, particularly around the dwelling, perfectly free from every substance that will taint the air. Every decaying vegetable or animal substance should be removed a good distance, and then covered in earth, for the purpose of manure.

The pig-pen, though at a respectable distance, should be supplied with loam to absorb all liquid matter. All manure in the barn-yard should be covered with loam, sand, or mud, to save it from waste, and to keep the air pure, as, in the changes so common to the wind, the air is liable to be wafted from the barn to the house.

Cellars should be made as clean as possible, particularly as they communicate directly with the dwelling above, and any foul air produced in them is very liable to pass into the house. All vegetables in the cellar that are tending to decay should be removed immediately. It is best to ventilate cellars thoroughly by opening doors and windows, and to keep the door open as little as possible that communicates with the rooms.

Ground plaster, and freshly-burnt charcoal, set in vessels or strewed around in cellars, or other places where foul air exists, or is liable to be produced, has a very healthful effect, by absorbing gases.

Necessaries often produce a foul atmosphere around them; and as the dwelling is near, the offensive air is often wafted to it, and even when not perceptible,

it is often operating injuriously. Some prepare these conveniences and cover with loam or other substance all night soil, so as to do away entirely with all unpleasant and unwholesome effects. When this is not the case, charcoal, plaster, chloride of lime, or other disinfectants, should be thrown into the vault, to absorb all noxious odors.

Water from the sink should be absorbed in loam, &c., for manure, instead of rising in foul gases, and being blown into the house. There are some cases of malignant and fatal disorders going through a family, while all the rest of the neighborhood are in good health. This is often owing to some local cause, some foul puddle, pool, or stagnant pond, near the dwelling, or a general negligence as to keeping the premises clean.

Decaying weeds, grass, potatoes affected with the rot, potato tops, pumpkin and other vines, and various productions, are undergoing decomposition in the fall; and in the aggregate the amount is large, and filling the air with pestilential gases. Farmers may do much good to themselves and the community by burying all such substances, and converting them into manure. Make them into a compost heap, well covered with loam, to absorb the gases.

FRUIT GARDEN OF A. LACKEY, JR., MARBLEHEAD.

On a recent visit to this garden, we were highly delighted with the success of Mr. Lackey, and the result of numerous experiments which he has made. His attention has been mostly directed to the cultivation of plums and pears; and as it was the season of plums, we paid particular attention to this subject.

Mr. Lackey has collected numerous kinds, foreign and domestic, and is subjecting them to fair experiment. After thorough trial, he has rejected some that are not worthy of cultivation; and yet he has more than a hundred kinds on trial, some of which are new and very promising. The result of such operations are highly useful to the community, and Mr. Lackey deserves high commendation for his zeal in a useful cause. He has entered into this business with so much ardor, that, though young,

he already shows a great degree of intelligence and discrimination, which would do honor to a veteran pomologist.

He has preserved the even tenor of his way in retirement and silence, but he should be known, and his information, which he freely communicates, should become public property for the general good, and he himself ranked with the distinguished cultivators of fruit. We intend no flattery or exaggeration, as we deal in facts.

We are under obligations to Mr. Lackey for several fine specimens of plums, which we shall occasionally figure and describe; and he has promised to furnish us with results of experiments and his opinions after the season is past.

Mr. Lackey has about twenty-five bushels of plums this season, on about one fourth of an acre, (a small part of his trees being in a bearing state,) which is probably a larger crop than any other person has raised in this section, on the same extent.

His land is a moist, heavy soil; it was too cold and wet for tillage, until a large quantity of sea-sand was hauled on to it. His trees are vigorous and productive, and they are remarkably healthy, and his plums have generally been free from the curculio. He heads in his plum-trees, as the peach, by cutting off, in the spring, about two thirds of the previous year's growth. He considers heading is as necessary to the plum as to the peach, if not more so.

He has raised about six hundred plum seedlings, from the Green Gage, which he is putting on trial with a view of procuring new and superior kinds; and we have no doubt that from so extensive an experiment, some valuable new varieties will be produced. We need a plum of the high quality of the Green Gage, that is larger and a better grower.

CURCULIO.

Mr. L. Burt, of Walpole, N. H., informs us that the curculio used to sting his plums very much until he adopted the following practice. He fixed spouts from his house to his trees, and the soap-suds and wash from the kitchen were directed around the trunks and roots of the trees; and while he pursued the practice, his plums were untouched by the curculio; but when this was neglected, his plums were destroyed. Other persons had tried this preventive with the same success.

The curculio will not sting plums when there is not a suitable place for its young to burrow in the ground below; hence the advantage of paving under trees; but this is an expensive preventive. The wash from the house is not only good to prevent the operations of the curculio, but it forms a valuable manure for the trees, and supplies moisture, a good share of which is essential in the successful cultivation of plums.

SMUT IN WHEAT AND OATS.

You will please to indulge me until I can communicate some facts to your farmer friends — facts

which, in all probability, the most of them are not aware of. The subject to which I allude, is smut in wheat and oats. It has become a universal rule, almost, for farmers to reap their wheat and oats before ripe. Wheat, for the reason, most of them say, because it will make better flour, and oats for the purpose of making better seed, both of which is a mistake, in my opinion; but I shall not trouble you with any arguments of mine on the subject at present: my object in this communication is to show some cause for smut. The true cause of smut in wheat and oats, in my opinion, is because the seed that is sown was not ripe when cut. By the seed not being fully ripe when cut, the proper qualities to produce good wheat or oats again are not properly matured in it. Although at the same time that there is not sufficient substance in the seed to produce the wheat or oats, there is sufficient substance in it to bring forth the blade or stock; but there is a material difference between the substance that produces the stock, and the substance that produces the grain. What more fully convinces me that the above is the true cause of smut, is, that I bought some seed oats from one of my neighbors this spring, and sowed them; when they headed, there was at least one third of them black heads. I was surprised and sorry, and made some inquiry of my neighbor what was the cause of so many black heads. He told me, the reason of it must be by a mistake that was made when he threshed his seed oats. He cut about one half of his crop quite green, the other half quite ripe, for seed, stacked them side by side, and when he sent his son after them, he took the wrong stack. Another of my neighbors sowed some old seed and some new; the old seed was ripe when cut, the new was green; he sowed them in the same field, the same day. There were no black heads in the old oats sown, but the new seed were about one third black heads; so much difference in them that you could tell them to the very land sown, and almost to the furrow. Now, if this is the true cause of smut in oats, it undoubtedly must be the true cause of smut in wheat. If it is not, I would like very much if some of your subscribers would inform me what is the true cause. F. S. H.

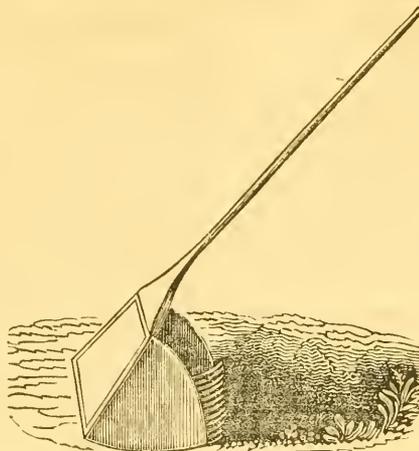
GASTON CO., N. C., 1849.

— *Philadelphia Dollar Newspaper.*

REMARKS BY EDITOR N. E. FARMER. — The subject suggested by the above article, is worthy of consideration and experiment, and for this purpose we present it. The case named in which new and old seed were sowed side by side, and with different results, is not conclusive evidence of the superiority of late cut seed, as the writer infers; for its excellence might depend on its age, which might destroy the cause of smut existing in the seed. We hope that experiments will be made to give a fair illustration of this subject.

PORTABLE RAILWAY.

Dr. Spurgin favored the council with the inspection of a model for a rotary railway, on the principle of the simple roller, for use in farms, docks, warehouses, and other places where heavy weights were to be conveyed short distances without the aid of horse power; as manure from yards, corn from stack-yards, timber from woods, turnips or mangel-wurtzel from flat, heavy land. He considered that this mode of conveying would prove fully efficient in its action; combining great simplicity with ready adaptability for the purposes required, at a cost not exceeding ten pounds. — *English Paper.*



THE CRANBERRY RAKE.

This is a small, neat, simple implement, that costs but a trifle; yet it is important as a labor-saving tool. One man, with this cheap contrivance, will do as much as several men without it. In some other departments of labor, hundreds of dollars are expended to accomplish so desirable a purpose in saving time and despatching business.

We have various accounts of how much a man will do in gathering cranberries with a rake, and some great stories, which nobody believes, excepting those who do great things themselves. A good hand, with a good chance, will gather about twenty bushels per day, with a rake. Who, then, would gather this fruit by the tedious process of hand-picking, when a valuable implement can be had that will save several times its cost every day it is used?

POTATO ROT.

We have various accounts as to this disease. Some farmers say that it is very destructive, others that it is very light, or has not made its appearance at all. Most persons of whom we have made inquiries have seen but very little of it; and it probably exists only to a small extent. We have examined several kinds of our own, both on dry and wet land, and we have seen no rot in them, not even in the Stockbridge, which is far more liable to the disease than any other variety. Yet, as we have dug only a few for our own use, we have not yet had a good opportunity to judge.

In most cases, Chenangoes and other tender kinds that have been dug on rather wet land, and stood in market over night, are considerably affected. Most of the potatoes in this state and farther south, in New England, were planted early, and they became ripe, and vegetation generally ceased before there was any weather that tended to promote the rot; therefore they will be less liable to be affected than those that were growing after the rot appeared.

We have not supposed that the rot had disappeared, or was passing away, as has been the opinion of

many, as it did not appear as early as usual this season, but that the malady would prevail again, whenever there was suitable weather to promote it. In the last of August, and early in this month, there were a few days of warm weather, and alternations of showers and sunshine, and hot days and cool nights, which promoted the rot. So we have had but very little weather during the season, that tended much to produce the rot. The weather is now, (September 10th,) and for several days past has been, cool and bright, and will probably check the disease.

We would not have our readers infer, from what we have said, that we regard the state of the weather the main cause of rot, as we consider the principal cause atmospheric, and the weather a secondary or predisposing cause, the same as stimulating manures, wet land, a tender kind, &c.

IDENTITY OF GLANDERS IN MAN AND HORSE.

When the Eleventh Hussars were last quartered in Dublin, our surgeon, in conjunction with some of the most eminent medical men in that city, attended a policeman at one of the hospitals, who died of the glanders. The unfortunate man, it is supposed, took the infection from drinking out of a bucket which had been used by a glandered horse. Three days before this man died, a horse was purchased, and was inoculated with the matter from the man. The horse showed all the symptoms of acute glanders, of which he died. The man also died. Drawings were taken by an eminent artist of portions of the lungs of the man, and also of those of the horse, which showed the most perfect similarity in the tubercles. Drawings were also made of the Schneiderian membrane of the man and the horse, showing the identity of the ulceration. The man was also shown as he lay dead, with the appearance of the pustules over the body; these pustules appeared to have a very marked difference from those in other diseases, having a white areole instead of a red.

This case excited great attention at the time, and our surgeon was requested to attend at Chatham with the drawings, which were carefully copied and deposited in the Medical Museum. — *The London Veterinarian*.

For the New England Farmer.

BOMMER MANURE.

MR. EDITOR: In the Farmer of August 18th, under the caption of "Profit of Patent Rights, &c., Papers," alias Bommer Manure, your correspondent R. M. wishes "to know all that can be brought against it," from "actual experience," or, by "weighing facts honestly." We infer from this last sentence that the idea which the author wished to convey was simply this, viz., that as truth on all occasions should be spoken, he demands truth, the whole truth, and nothing but the truth, which we propose to do on this "all-important" subject.

About Bommer's method for making manure much has been written both in regard to its value and the validity of the patent right, and we presume much more will be written before it is set at naught. The subject, we believe, to which this correspondent wishes to "draw the attention of contributors" is the value of the manure and not the validity of the patent right. Having formerly given our opinion in the columns of a respectable journal on this method of composting manure, we again take up our pen, and shall endeavor to defend it; for, being a member of a company formed in this place little more than a year ago, who accordingly purchased the patent right for the town for one half of the amount mentioned by your correspondent, we do not discard it. Although we cannot speak from "actual experience," having not fairly tested the experiment, yet, as far as observation is concerned, we are able to affirm that a member, soon after purchasing the right, made a heap of what is called Bommer Manure, on which he last season raised a good crop of corn.

We believe this kind of manure is profitable to the farmer notwithstanding all that has been "brought against it," because the ingredients of which it is composed are of a fertilizing nature; secondly, because much of the filth and drainings from cow-yards, and other resources on farms, can be profitably made into manure by this method, without which the farmer would receive but little benefit; thirdly, because farmers living a great distance from places where manure may be purchased, and in hilly sections of towns, can make their own manure, and thus save the expense of buying and teaming.

We hope farmers will "look at this subject without partiality," for we believe it to be of interest, and from current reports we should judge that no farmer need be without this method of making compost manure, for it is thought by some to be quite generally known. As we have not seen any thing in an agricultural paper that would give the intelligent farmer a full and clear conception of the method according to Bommer's record, we are not assured of the cheapness and ready access of the mode.

N. B. We believe the reason why some of those who have become acquainted with Bommer's method meet with disappointments or "failures," as it is called, arises from this one thing, viz., they do not carry out the principle strictly in accordance with the method. J.

WOBURN, Aug. 1849.

For the New England Farmer.

COTTAGE ARCHITECTURE—LANDSCAPE GARDENING.

MR. EDITOR: Perhaps there is nothing in which more taste can be displayed than in cottage architecture and landscape gardening. And yet, how little we see in the country, compared with the number who have the means to gratify this kind of taste, did they really possess it! Men of property

will thoughtlessly build a plain, square house in the dust of the road-side, with only a rod of ground in front, covered with weeds and mullein, and congratulate themselves on the pleasant site, and its proximity to "passing." Such men have no taste, and not a few of them deride it. They claim to be utilitarians, republican in their notions; and while they have no expenses to incur for "other people's eyes," they seem to be insensible to the fact that a degree of neatness and taste would soon become a new source of pleasure to themselves, and much enhance the value of their property.

The objects of taste in rural affairs are generally things permanent; not transitory, passing away in a month or a year, but objects which will endure for many generations with most of their beauties, to the praise of him who unites refinement with utility. Hence its importance.

I know that practical farmers are inclined to turn a deaf ear to such suggestions; but I do not perceive that a house handsomely located, neatly built, and a garden neatly laid out and planted, would be any more annual expense, than one built or laid out without tasteful considerations. Besides, who has not felt, that a beautiful object is an incentive to and lightens labor, and will so engage the attention, that moments otherwise uselessly spent will now be usefully employed? How can a person labor for that which he does not cherish? or toil in a garden, with satisfaction, that has been planned in defiance of the rules of good order and taste? Let the farmer's or gardener's (as well as every other person's) motto be "Perpetual Improvement."

Respecting cottage architecture, a number of beautiful plans have of late years been presented by architects, and adopted by builders. Look at Roxbury, which is unrivalled for its beautiful new cottages—erected upon rocks in the midst of brambles—and one will be astonished at what taste and headwork have accomplished, assisted by the hands. Here are found every variety and color which ingenuity can invent.

Not many years ago, the most open sites were chosen for building; but now the most sequestered and woody, if not too far from a principal road. The choice of such situations gives a greater opportunity for a display of taste, as handsome shady forest-trees are suffered to remain, while the ground is interlaced with walks and shaded with cultivated flowers and shrubbery—thus preserving the beauty of nature's wildness and the products of floriculture. And it is remarkable how a road cut through a piece of woods, with here and there a cluster of flowers, will redeem the wildness of nature.

Different situations of cottages seem to require, I think, different forms of architecture. The English style, with bay or semi-octagon windows, strikes us as best fitted for a level piece of ground near the street, and will bear more shelter than most any other kind. But a prominent site, at some distance from the street, would seem to require a more stately architecture, embracing lofty turrets, spacious and elevated piazzas, &c. Where streets pass a house on different sides, piazzas looking towards them are quite essential.

The color of a cottage is next in importance to its architecture. As a general rule, I think dark colors (chocolate, for instance) are not in good taste, as in most seasons of the year they are gloomy, and not calculated long to please. For stables and out-houses they are more tolerable. There is enough in the country when the trees are not in foliage, to excite melancholy, without sombre houses or dead-pole fences and summer-houses. Every thing in and around a cottage ought to look gay and cheerful; and hence brilliant colors for buildings, such as white, straw, light pink, &c., are far more preferable, to my taste, as they never encourage a feeling of

sadness, but appear in cheerful contrast with the surrounding landscape.

I am now setting out with trees an acre of ground, finely situated for a garden and house lot, with an inclination to the north-west, with pretty level rear, and am desirous of placing these trees to the best advantage, respecting walks, general appearance, &c. I have commenced planting trees entirely around the lot, about ten feet from the boundary, with a view of laying out a walk between the fence and trees, and also crossing the garden at right angles at pleasure. I shall keep the apple-trees mostly back, the cherries front, (on the road,) peaches, plums, and pears near the house, and interspersed otherwise as judgment shall dictate. As the front part of the lot rises from seven to ten feet in the distance of thirty or forty back, a substantial wall on the front line would be better economy, I think, than a fence, to secure the work. I would inquire, Mr. Editor, if earth can be banked up against it, or placed on the top of it, sufficient to grow a buckthorn or prim hedge. Which of the two is preferable?

Permit me also to inquire if it would be a good plan to plant grape-vines at the trunk of oak-trees fifteen or twenty feet high, that are to remain. If the Isabella grape would be too much shaded, would not the *wild* succeed, and could it be improved in quality? Any suggestions on the above, which your time and experience would permit you to make, will be happily received. L.

EDITORIAL REMARKS. — If the land rises steep from the wall, it might, of course, be very convenient to make a bank as high as the wall; but if the ascent from the wall is moderate, it would require considerable labor to make a bank as high as the wall, and have it level or nearly so; and if the bank be not nearly level, or made rather wide, it will be dry and unsuitable for growing a hedge. We would suggest filling up against the wall to about one third or one half its height, and then the top of the wall will hide from sight the lower part of the hedge, which is less comely than the other parts.

Attention has but recently been given to the cultivation of the prim or privet for hedges: of course, we know but little about it yet. Buckthorn is very luxuriant in its growth, and forms an excellent hedge for ornament, or for a screen; but as a protection where there is no wall or fence, we should prefer the native thorn of the south, often called the *Washington* or *Newcastle* thorn. It is hardy and well adapted to this climate.

If grape-vines are planted with forest trees, and the land well cultivated, they will grow finely; but when the trees have attained a considerable size, they shade too much, and the soil around the trunks for some distance is filled with roots, and the grapes will have a poor chance. In such case, it would be better to plant the vines some six, eight, or twelve feet from the trees, on the south, if convenient, and then train them to the trees, which might be done under ground, if more convenient.

The Isabella grape is rather late for this climate, even in a favorable location; therefore it should not be exposed to the disadvantage of a connection with trees, especially those of rather a large size. Some native grapes would be better adapted to such a location. The Strawberry and Coon (American Fruit Book, p. 255) are of great vigor, and will run

to the tops of forest trees: they are perfectly hardy, and they ripen their fruit the first of September.

For the *New England Farmer*.

DOMESTIC FOWLS.

MR. COLE. Sir: I should like to see some statements in the *Farmer* respecting the best kinds of hens or domestic fowls, for a farmer to keep. I see the *Ploughman* has some articles on that subject. There appear to be new varieties. Whether they are better or more profitable than the old, I should like to know. It is mentioned in the *Ploughman* about a hen which laid forty eggs in succession, or in as many days. Now, I have a hen of good size, though not the largest kind, which has laid, as my folks say, ever since last February, without wanting to sit. Can any of the new kinds beat that?

Yours, &c.,

J. S.

MANSFIELD, August 24, 1849.

EDITORIAL REMARKS. — There are many varieties of domestic fowls: some excel in one property, others in another. It is impossible to find a breed that combines all the qualities desired. For instance, there is no variety that will lay constantly without sitting, when eggs only are wanted; and sit whenever the owner desires a brood of chickens.

The Poland Top Knots seldom sit, and are excellent for those who keep hens expressly for eggs. They are a beautiful fowl, and well adapted to the condition of those who keep them for ornament.

The Dorkings are among the most popular races in this country and in England. Their flesh and eggs are excellent, their deportment is commendable, and they are excellent mothers. This race is often disposed to sit, and some complain that they are inclined to brood before laying a nest full of eggs.

The Game breed is remarkably hardy, superior in flesh, and good layers; but they are so pugnacious, that the young cocks often kill or disable each other.

The Guelderlands are a noble, quiet race, but rather tender, so that the chickens are hard to raise. We noticed this tenderness in hatching eggs by artificial heat. Many of these eggs produced chickens to the point of hatching, but none came out of the shell.

The Bucks County breed is remarkably hardy. On this account they are well adapted to early raising, as they will endure the cool weather of spring, which often destroys other kinds. And as they are very large, they appear, when about half grown, much like a common chicken two thirds grown; so that they are sold in market more to the advantage of the raiser than the consumer. This breed is very destructive to vegetation. An old protector will stand on a stout hill of potatoes, when disposed to make a display of his power, and it will be flying in every direction in half a minute. We hatched five sixths of the eggs of this breed by artificial means.

The Frizzled fowl has its feathers pointing forward, so that it cannot run amongst grain; and this is its peculiar advantage.

The Bantams are beautiful, and serve as pets for children; and they may run in gardens without injury.

The Bucks County, Malay, Cochinchina, and various large India breeds, and other extremely large races, are, generally, of coarse flesh, and the eggs are of coarse texture and unsavory. A friend remarked that his neighbors complained that the eggs from the large India fowls, which he sold them, were of a dark color, coarse, and less palatable than others; and he requested us to take some eggs of the large fowls, and try them with others, and report our opinion. We cooked them with the eggs of Dorkings and common hens, and we found that the color was darker, the texture coarser, and the quality inferior to the other two kinds. The difference was great.

We know not what new kinds may be made, and we would not discourage the production of new varieties, as some may be produced under a judicious course of breeding, or incidentally, for ought that we know, that may combine many excellent properties. But in breeding from the coarse India fowls, and retaining their peculiar properties, we think no great improvement will be made.

Some of the native varieties of domestic fowls, like some native cattle, are superior to many of the foreign races; and by selecting some of the best from different flocks, in order to avoid breeding in and in, a cross of fine fowls may be produced.

We have alluded to only a few breeds, and made only a few remarks on them, not intending a full description, with a view to show the difficulty, or rather impossibility, of selecting a race that would be regarded as best for every body. We have made these remarks, presenting various subjects for consideration, with a view to call forth the opinions of our correspondents. The subject, though small in its details, is very large in the aggregate, as may be shown by statistics.

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For the New England Farmer.

BARREN APPLE-TREES.

MR. EDITOR, Dear sir: I have been looking in the *New England Farmer* for something to make barren apple-trees bear; but I have looked in vain. I can hear nothing in relation to that subject. I have a tree on my farm that is young and thrifty: the trunk, within a foot of the ground, is thirty-four inches in circumference: it blossoms full, but never bears. If you know or can hear of any remedy, please to insert it in your paper, and much oblige

Your friend,

JAMES MILLIKEN.

CHARLESTOWN, N. H., August 30, 1849.

EDITORIAL REMARKS.—To cure barrenness in fruit trees, change the soil. If the soil is clay, or a cold, muddy soil, remove a part around the roots, and put instead gravelly or sandy loam. If the soil is now too light and porous, change a part for a more compact soil. Apply several kinds of manure, such as ashes, lime, or old lime mortar, soap suds, sink water, plaster, soot, &c. Another aid to productiveness is moderate pruning, to expose the branches to air and sun. Clipping off a part of the present year's growth, in July, tends to the production of fruit buds. If a tree is not sufficiently vigorous, manure and cultivation will render it more fruitful.

After all that is done to render a tree productive, some kinds will bear but sparsely, as they are naturally poor bearers, and it is impossible to change the natural habits of a variety.

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For the New England Farmer.

MR. COLE. Dear sir: I have a young, thrifty apple-tree orchard, containing one hundred and thirty trees, of about fourteen years' growth. For the last five or six years, the trees have been infested, as most trees are, more or less, with the *borer*. Last spring, I undertook an experiment for the purpose of exterminating the foe from this orchard, if possible. The course pursued, and the result, I will give you in detail.

On the 13th of last April, I put around the base of the trunk of every tree, from one to two shovels full of house ashes. This was pressed down around the tree as hard as possible. I then put a quarter of an ox cart load of swamp muck around each tree, covering the ashes around the trunk to the depth of about four inches. This I also pressed down, leaving the surface smooth and hard.

From that time until the 14th of the present month, I made many and careful examinations of every tree; and in no single instance did I find any sign or indication of the working of borers. On the 14th of this month, supposing that the time had passed for the miller to deposit her eggs, I commenced removing from each tree the muck and the ashes.

On examining the first tree, I found, about four inches below the surface of the muck, the *chippings* or *castings* of a borer pressed hard against the ashes, the chips having become almost as hard as the bark of the tree. I proceeded to search for him, and immediately found him in what seemed to me a sad predicament. He had excluded himself entirely from the air, and was in a lean, soft, flabby condition, head downwards. The chips he had apparently last made looked old, as if he had given up work for a considerable time before.

This first tree and first borer was a fair sample of the whole, for out of almost every tree in the orchard I dug out from one to ten borers. I found them all, as it were, in a perfectly safe trap, and many of them were actually dead. The result then shows most conclusively to my mind, that the borer was obliged to give up work, in consequence of the muck and ashes being pressed so hard around the trunk of the tree as to exclude the air, and prevent him from throwing out his chips. Since then, there is no sign or indication whatever of the miller having left the trees from April to August, and consequently could not have deposited any eggs the present season, I feel confident that I have *killed every borer*, unless some may have escaped my observation.

Yours truly,

E. SANGER.

SHERBURNE, August 25, 1849.

EDITORIAL REMARKS.—We are happy in presenting a new mode of assailing one of the most formidable foes that the fruit-grower has to contend with. This experiment appears perfectly successful, and it presents itself as something that appears reasonable. The ashes and muck scattered around trees in a light soil, or one of common moisture, will, as a manure, abundantly pay all the expense of procuring it. So the expense of killing the borer in this way will be but a mere trifle. We hope that many will try this mode another season, and let all who attempt it make thorough work.

For the New England Farmer.

HEN LICE.

MR. EDITOR: I notice that in the Massachusetts Ploughman of the 11th inst., a correspondent makes an inquiry, *What will destroy hen lice?* The editor, in answer, gives no specific remedy, but recommends to give them liberty to range through the fields, and wallow in sand, ashes, &c. He also says, "When chickens are covered with lice, the best way to rid them of the plague is to catch them and smear them over with oil or greasy matter." I was much troubled with these minute insects on my hens and chickens last year; so much so, that one fine hen died while sitting, just before the time for her to hatch. The lice were so plenty, that I could not put my hand or a finger upon their roosts, or timber in connection, half a minute, but that my hand would be immediately covered with them, crawling ahead as fast as possible; and if not immediately brushed off, would extend over the whole body.

Being at East Foxboro' railroad depot, last fall, some person mentioned that a man was there a short time before from Vermont, who stated an *infallible* remedy for hen lice, as follows:—

Boil up a quantity of onions in water. When the onions become soft, mash them up, and with the water stir in Indian corn meal till sufficiently thick to give out to the hens and chickens when cool. They will eat it, and not a louse will be found on them twenty-four hours after, and they will cease to infest their roosting-places after. We made a trial of the above remedy late last fall, and have not been troubled with lice since.

ISAAC STEARNS.

MANSFIELD, August 20, 1849.

EDITORIAL REMARKS.—Of all the troubles and vexations, in keeping hens, we know of none so serious as that minute insect that infests hens, when they are confined, or are kept in large flocks. Many a time we have set a hen in a new box, and clean nest, perfectly free from lice, and have carefully guarded against them in the hen-house; but the insidious foes would come from their hiding-places, and attack the quiet hen, who could make no resistance, and either kill her on the nest, or compel her to leave it before hatching. At first, we put a little lard on the hen; but we found that, in such cases, the eggs never hatched. Afterwards, as the lice increased, we brushed them from the eggs, and put them in a new nest and box, and rubbed yellow or dry snuff on the hen, and let her run and burrow half an hour or an hour to get rid of the snuff and lice. This was a great deal of trouble; and should the above simple mode generally prove a remedy, this little item of information will be a great acquisition to the poulterer. We advise those who try this remedy, to examine the eggs laid soon after the onions are given to the hens, and see if they are not affected by the onions.

For the New England Farmer.

EXPERIMENTS ON POTATOES.

MR. EDITOR: I noticed an article in your paper of May 26, on planting large or small potatoes. I have several times tried the experiment by planting large and small potatoes where the land and manuring were the same; and the result, in size and qual-

ity, I believe, in every case, has been in favor of large potatoes. As my experiments were not put in writing at the time, I cannot now give an exact statement of the experiment. I will, however, give the result of two, as near as I can recollect.

Several years since, I planted a piece of potatoes, and I selected eight rows about ten rods long: the land and manuring were alike. I planted two rows with all large ones, one in a hill, and the hills about three feet apart. Two rows of cut potatoes, cut nearly as follows: those a little larger than a hen's egg cut open once; larger ones into three or four pieces, according to their size; five rows with small potatoes, and two rows with small pieces of potatoes cut off with the eyes.

Immediately after they came up, the two rows where the large potatoes were planted could be distinguished at a considerable distance, by their being much larger than the others, and the difference continued through the season. When they were dug, they were carefully measured, and the result was, (as near as I can now recollect,) that the crop of large ones over the cut ones was more than all the seed of the large ones. The two rows of small ones and those planted with the eyes cut off were nearly the same, but of smaller size and considerably less in quantity than those planted with cut potatoes.

At another time, I planted one row with large potatoes cut in two pieces; another row with large potatoes without cutting; and another row with potatoes about the size of a small hen's egg. The produce of the cut potatoes and large potatoes without cutting was nearly the same; but there were less small ones where the potatoes were cut. In the other row, the quantity was less, and the size smaller. From the above and other similar experiments, I have long been of the opinion that it is not profitable to plant small potatoes.

Yours with respect,

JOSEPH HOWE.

METHUEN, 1849.

EDITORIAL REMARKS.—The result of Mr. Howe's experiment is similar to our own. In most cases, we get the largest yield from planting large potatoes; and we think that by planting large potatoes, or those from medial to large, the variety may be improved, or it may be saved from deterioration, which must attend constant planting of small potatoes. We give this as a matter of opinion, and we have many facts to support our views. Yet we may err. We have no positive proof to show that constant planting of small potatoes for many years will cause degeneracy, yet we have circumstantial evidence to support this proposition, and it seems to be according to analogy; for all races of animals degenerate on breeding from the smallest. But we may mistake as to analogy; for a hill of potatoes, in regard to small and large ones, may be different from a litter of pigs or brood of chickens. Late-planted beets, turnips, &c., are best for seed, as they possess more vigor than full-grown roots. It may be similar with the potato. We find late-planted potatoes excellent for seed; and since the rot has prevailed, the English plant late for seed, and dig the crop while green or immature. The small potatoes are frequently those that set late; and as the first that set monopolize most of the food prepared to nourish the tubers, and the plant comes to maturity, or becomes exhausted for want of nourishment, the small potatoes must continue small; yet they may be in good condition

for seed. This subject is unsettled, and we need more exact experiments on it.

SOILS ON WHICH LIME IS USEFUL.

By James Hyatt, *Chemist of the Mount Airy Agricultural Institute, Germantown, Pa.*

Lime may be advantageously applied, in proper quantities, and under proper circumstances, to all soils, except to marly and calcareous ones; that is, except to those which already contain upwards of five or six per cent. of carbonate of lime, and in certain cases, even, to some of these.

The lands which lime benefits in the greatest degree are the following: Peaty soils, and those which contain large quantities of vegetable matter; clayey soils, which are needed to be rendered more light, open, and active; lands that are worn out by long and exhausting culture; soils sterile from the existence of green copperas (proto-sulphate of iron) in considerable quantities; soils wanting potash; and those which are found to be deficient in the quantity of lime necessary for its supply to the growing crops. On other soils, lime may often be profitably employed according to their mechanical condition and chemical composition, and to the expense of liming; as will be hereafter explained. Those soils which contain a proper proportion of the other different mineral ingredients necessary to fertility, together with sufficient organic matter, and which are of the right mechanical structure as to mellowness, being neither too compact nor too open, may need no application of lime for a long series of years, although the percentage of lime in them is very small. Chemical analyses have shown, that soils known to be fertile without manures, may contain no more than one five hundredth part of lime; for then, though the proportion of lime is inconsiderable, yet we learn by calculation that an acre of soil, six inches in depth, will contain about a ton and a half of lime — undoubtedly more than sufficient for the supply of rotations of crops for a quarter of a century.

These fertile soils, however, which contain such small, and even somewhat larger proportions of lime, may doubtless be made to yield larger and surer crops, by its addition in considerable quantities. The effects of lime on such soils are, with proper management, altogether beneficial, notwithstanding that they then require, besides the expense of liming, a more costly system of manuring. The increased production that follows the liming tends to exhaust the soil of its necessary ingredients, and to destroy its fertile properties, so that, while lime is continued to be applied, instead of supplying the place of other manures, it becomes necessary to be more liberal in their application. The farmer who increases his crops, without increasing his manures, will soon render his soil barren. All this extra labor and expense, however, will be amply repaid by the gain in production; for if there is any profit in raising a light or a medium crop on a piece of land, this profit rapidly swells, as the same land is made to yield its heavier products. It would not be advisable that time and money should be lavished in the injudicious and extravagant application of manures. That which a farm is capable of yielding in the shape of animal and vegetable manures, should be carefully husbanded, as well as that which can be economically purchased and applied. And foreign substances, in the shape of ashes, plaster, bone-dust, or salt, of which the land may stand in absolute want, must be procured. With care and good judgment in these matters, such a soil as is referred to may be limed with great advantage. — *Transactions N. Y. Ag. Soc.*

REMARKS BY EDITOR N. E. FARMER. — In England, and some parts of this country, great improvement has been made in lands by the liberal application of lime alone. In some cases, several hundred bushels have been applied to the acre, and the abundant crops from soil that was previously sterile, have amply repaid the outlay.

But in New England, farmers have not generally found sufficient advantage from the use of lime to pay the expense. In many sections, there is sufficient lime in the soil; and in some cases, the failures from the application of lime may have been owing to the improper application. Caustic lime is often applied directly to the growing crop, which would probably be injurious the first season, even if it would prove beneficial in future; and the cultivator often judges hastily, and condemns lime without waiting to give it a fair test. The result should be carefully noted for several years. Some experiments in England have shown a favorable result for twenty years after the application of lime.

FUEL IN PARIS.

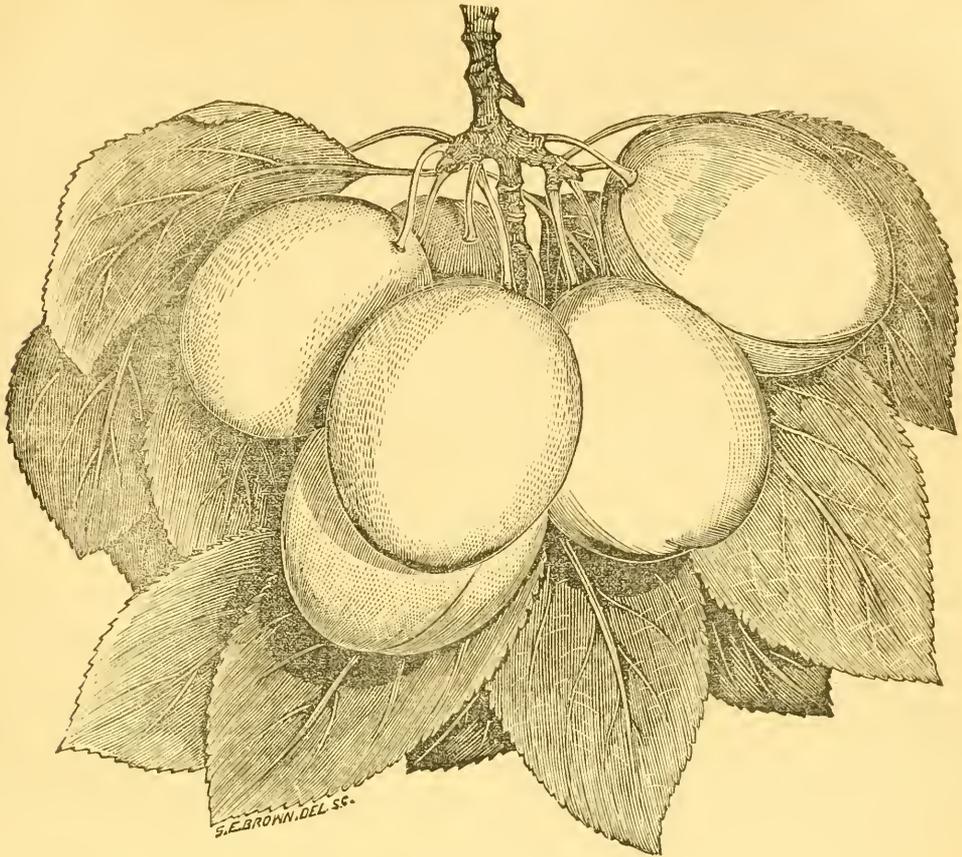
There are wood and coal shops in every street, and at almost every corner, where you can buy any sort of fuel you choose to order; and as it is always sold by the pound, there is no dispute or uncertainty as to the quantity, and the price appears to be uniform throughout the city. The most rigid economy prevails as to the use of fuel. I never saw any thing like it, and I myself have learnt many a useful lesson. The French often submit patiently to a degree of cold, which, with our habits, we should think scarcely endurable. In this respect, I think they show their wisdom, and I believe have fewer colds and catarrhs, than prevail with us. They never make a fire, unless absolutely necessary. Their fuel, in the next place, is always perfectly dry, and is presented in the most convenient forms. They use much charcoal for cooking, in which there is great economy. They have none of the detestable cooking stoves which are used with us, filling the house with odors of the most disagreeable kind; but they have ranges of little furnaces, where they cook entirely with charecoal, and so placed that all the odor of the food is carried off. They have every contrivance for making a fire instantly, and are never at a loss for heat, so numerous and complete are their appliances. — *Selected.*

ONE THING AT A TIME.

Step among your neighbors, reader, and see whether those of them who have got along smoothly, and accumulated property, and gained a good name, have not been men who bent themselves to one single branch of business; — who brought all their powers to bear upon one point, and built on one foundation. It must be so.

Go out in spring, when the sun is yet far distant, and you can scarcely feel the influence of his beams, scattered as they are over the wide face of creation; but collect those beams to a focus, and they kindle up a flame in an instant. So the man that squanders his talents and his strength on many things, will fail to make an impression with either; but let him draw them to a point — let him strike at a single object, and it will yield before him. — *Selected.*

The bones of birds are hollow, and filled with air instead of marrow.



PRINCE'S YELLOW GAGE PLUM.

Synonymes — *Yellow Gage, American Yellow Gage, White Gage.*

This plum was raised sixty-six years ago, by the elder Mr. Prince, of Flushing. The excellency of its fruit, and the habits of the tree, commend it for general culture, as it is among the very best early plums. The tree is remarkably hardy, very vigorous, and productive.

The fruit is large medial; nearly oval; slight suture; of a rich golden-yellow covered with white bloom; stem nearly an inch in length, slender, in a very narrow cavity; flesh deep yellow, rich, sweet, and melting; sometimes a little dry, or juice not abundant. Freestone. Ripens from the twelfth to the last of August.

The Yellow Gage forms a large, long-lived tree, and is among the best and most valuable plums of its season, either for market or the private garden. A few days ago, we saw in the garden of Mr. Henry Vandyne, Cambridgeport, two trees of this variety, that were set twenty-four years ago. One is in a healthy, vigorous condition; the other has lost a part of its top, but it has been a profitable tree, having produced in one year upwards of fifty dollars worth of fruit. Mr. A. Lackey, Jr., of Marblehead,

had two and a half bushels this season from a tree set out eight years ago, from a fine bunch of which our engraving is made.

OBITUARY.

Within a short period, two of the most distinguished lights in the agricultural community of our country have set forever.

About two months ago, Elias Phinney, Esq., died at his residence in Lexington. As a practical farmer and agricultural writer, Mr. Phinney held a distinguished rank; and he was one of the principal pioneers in agricultural improvement in this country. Though he is no more, his works still live, and are exerting a wide-spread and happy influence.

Rev. Henry Colman, long distinguished as an able and interesting agricultural writer, who was an agricultural commissioner of this commonwealth, and recently an agricultural tourist in Europe, died, about a month since, in England, as he was about to embark for this country. This was his second trip to that country.

MORGAN HORSES.

MR. EDITOR: The improvement of our breeds of horses is an object which deserves attention. Of the whole number of horses reared in the country, the proportion of good ones is very small; hence the remark is frequently made that the rearing of horses is unprofitable. The origin of our most valuable horses is not only a subject of interest to the curious, but it is also one of great importance; and a course which has produced improvement may be safely relied upon for the continuance of similar results.

The origin of the valuable stock of horses called *Morgan*, has been the subject of some controversy in this state. Many have supposed that they were of Canadian descent. Some persons, having horses of Canadian descent, have advertised them as Morgan horses, which is very derogatory to the Morgan blood. The stock of Morgan horses is so universally known and admired throughout New England, that it is hardly necessary to repeat their merits. For a seller of horses, it is only necessary to establish the fact that his horses are of the Morgan blood, and he meets with a ready sale at good prices, and the purchasers are more than satisfied. They excel in great endurance, carrying weight a long distance — and as roadsters, they excel all other horses in this or any other country — are full of noble and generous spirit, with such docility of temper that the most timid can drive them; but if put to their mettle, they are a full hand for the best driver. It has been asserted, and cannot with propriety be denied, that there has never been a stock of horses in New England which has proved so generally useful as the Morgan stock of the original Morgan horse, raised by Justin Morgan, of West Springfield, Mass., in 1793, and taken to Randolph, Vt., in the fall of 1795 — sired by the True Briton, or Beautiful Bay, raised by General James De Lancy, of Long Island, N. Y., and sired by his imported English horse Traveller, (known as Morton's Traveller,) who traces directly back to the Godolphin Arabian. Dam of the original Morgan was of the Wild Air breed, sired by the Diamond, who was raised in East Hartford, Conn. Diamond was sired by the Wild Air, known as the Church Horse. The Church Horse was sired by the Wild Air imported from England by General De Lancy, and afterwards taken back to England. He was a grandson of the Godolphin Arabian. The dam of the Church Horse was an imported Wild Air mare, owned by Captain Samuel Burt, of Springfield, Mass.

The above is the genuine pedigree of the Morgan horse, which is in no way of French Canadian descent, as many have erroneously supposed. The description of the Morgan horse is not in the least exaggerated.

LINCOLNVILLE, ME., 1849.

— *Maine Farmer*.

J. D. T.

BREAKING A COLT.

Some good people, who raise colts, are not aware that they are thinking animals, and have feelings, passions, and affections, very much like human beings. They cannot talk — that's all. People who do not appreciate the character of horses, are apt to treat them like brutes, without love or mercy, and without any appeal to their glorious intelligence. "The horse knoweth his owner;" — and he knows much more, — he knows when he is treated as a Christian's horse should be — and in respect of treatment the Turk and Arab have much the advantage of us in civilization. Those pagans make friends of their horses — they love each other, and in the sandy desert or the wide plain, they lie down side by side, and each is equally ready to resist the approach of an enemy.

It is not often so with us. The colt is left to grow up to manhood wild in the pasture, with very little acquaintance or sociability with his master. As soon as he is thought strong enough to work, he has a saddle and a harness slapped upon him, so hard as to make him tingle again. He is put into some strong cart or wagon, without understanding what is wanted, and being bewildered in his ignorance, and exasperated at such rough handling, it is generally the case that he exerts his best strength to get out of the scrape and avoid his enemies, by plunging, kicking, throwing himself down, and sundry other such vile tricks, (as they are called,) as would naturally occur to a poor beast who thought himself most villainously abused. While this is the operation in the mind of the unsophisticated colt, the horse-breaker is swearing at his vicious obstinacy, laying on the licks with the string or the butt of the whip handle, and doing his best to draw blood at every stroke. His intention is to subdue the beast to obedience. He may succeed, but it will only be by destroying his noble spirit, and rendering him a tame, passive beast of burden, working only as he is forced, but without ambition or good will. The man is the most ignorant brute of the two. He is destitute of all proper knowledge of the animal who "knoweth his owner," and should be beaten with many stripes himself.

The fact is, the colt should be treated with unvarying kindness, except when he is manifestly vicious, contrary to his own knowledge, after having been fairly taught. When he is taken up for breaking, he should be kept hungry and thirsty, and be fed from the hand of his master; while all the little tokens of praise, fondness, and approbation, which are as gratifying to a horse as to a woman, should be liberally bestowed upon him. No act of rudeness or unkindness should inspire him with fear; — and in a short time he will come to his master, as to his best friend. Let him feel that he is safe in the hands and care of man, and he will place confidence in that attention which is bestowed, and with a light heart will exert himself to please his rider. Bestow upon him the whip, and jerk him about with the halter and bridle, and his temper will rouse to resistance, or sink to stupidity.

A horse may be taught, like a child, by those who have won his affections; but the method of teaching is by showing distinctly what you want him to do, not by beating him because he does not understand and perform at the outset. Judicious management is required in the course of instruction, for these creatures, like men, have very different intellectual capacities and tempers; but all may be mastered by kindness, while the best, the most high-spirited, the most generous, will be ruined by beating.

To illustrate this point, which we mean to enlarge upon hereafter, we will relate a little circumstance that occurred during a tour to the White Hills. Having a horse, — a fine light gray saddle-pony, — we undertook, with a friend, to ride to the summit of one of the mountains. Federal — that was his name — and he belonged to Niles — would have done any thing for me, for he and I had become well acquainted, and he was a most noble-hearted fellow. Federal clambered up according to my directions. I thought I could see the best way, and guided him accordingly. We got at last upon the peak, where was a level of some yards square, and Federal, who never had been up so high in the world before, as we slackened the rein, turned three times round to look at the prospect, and then set up a scream of delight. It was not a neigh, nor whinny, nor any common mode of talking for a horse, but it was a regular hurrah, as much as to say, "O! thunder and lightning! Ain't this glorious?"

After a while, we turned to descend, and gave Federal his own way. It seemed at times rather a ticklish job; but he managed it well. The little

rascal stopped now and then and made a survey as carefully as could be done by a civil engineer. He turned and tacked, and worked ship, like an old sailor among the breakers; and being careful and surefooted, he came down as safe as a tortoise. But we brought up at last against a fence — having taken a different direction from that by which we ascended. We rode at the fence fairly, but Federal stopped short. "You fool," said I, "can't you jump?" Tried it again — no go. I stopped a moment, and thinks I to myself, this horse has never leaped a fence in his life. I felt sure he would have tried his best for me at any time, and would have broken his neck sooner than have refused, if he had known exactly what to do. I talked kindly to him — coaxed him — patted his neck; and as soon as I saw his head raised about two or three inches, and his ears pricked up brightly, and felt the muscles of his sides swell under the saddle, I knew he had caught the idea: that was all he wanted: I gave him the hint to try it, and over he went like a swallow, at least two feet higher than was necessary. The little scamp meant to make a sure job of it. He was no sooner down, than he wheeled about, looked at the fence, and snorted, as much as to say, "What do you think of that?" and trotted off. Ever afterwards during our journey, Federal was on the look-out for some excuse for leaping. A log, a run of water across the road, even a stone bridge, he uniformly pricked up his ears at and leaped across — giving a snort each time, to announce his joy at having discovered a new feat.

The moral of this matter has been stated at the outset. Federal only needed to understand what we wanted, to do all in his power for its accomplishment. He was only a hired horse, but we understood and loved each other. He was little, but high-spirited, noble, generous: no whipping on earth would have managed that horse so readily as kindness and encouragement. Pulling, jerking, whipping and spurring, might have been tried in vain to make him leap the fence: with a moment to think about it, and a nice dose of flattering applause, he flew over it like an experienced hunter. More about this hereafter. — *Boston Times.*

PATENT MANURES, ETC.

We are daily applied to for an opinion on newly invented compounds, under the significant titles of Improved Guano, &c. &c., and each manufacturer of course claiming that his production is superior to all others, and recommending it for every crop and on all kinds of soils. These indiscriminately useful compounds, we cannot recommend, except for the use of those who cultivate very small gardens, and require so small a quantity of manures, as to render their manufacture unprofitable to them.

How do these philanthropic manufacturers of manures make a profit sufficient to induce a continuance of their business? This is a natural question for the farmer to ask himself, and he can readily answer, because the material used to divide the more costly part of the ingredients is valueless, or nearly so, and the profit of the manufacturer must necessarily arise from using less of the valuable or costly articles, and more of the divisor or valueless portions.

When these compounds are made in large cities where labor is dear, and packed in barrels, more than half the value to the farmer will be paid for labor, packages, and transportation — while a very considerable portion of the value of the other half must go to the manufacturer as his profit.

Why should the farmer pay for the handling, packing, transportation, &c., of the great mass of these manures, when he has the principal part of

their constituents, so far as relates to weight and bulk, at home? If he have on his farm, or near it, dried meadow, pond or other muck or mud, charcoal dust, peat, turf, or indeed headlands or sandy loam, he should not subject himself to the useless expense of paying transportation on these nostrums.

Let our readers supply themselves with a shed, and place under it the following ingredients: — One carboy of sulphuric acid, (oil of vitriol,) a cask of bone dust, a few sacks of dirt, salt, ashes, saltpetre, cubic petre, plaster of Paris, some night soil, thoroughly mixed with charcoal dust, a sack of real Peruvian guano, and, when required, caustic shell lime hot from the kiln, ashes, &c.

Outside the shed let him have a pile of some divisor — charcoal dust, well decomposed muck, peat, turf, or any other semi-inert matter, or even some of his own soil, either of which will answer as a divisor. With such a preparation for manufacture, read the *Working Farmer* and make your own patent manures, using only such of the ingredients as the crops requiring top-dressing or stimulating may stand most in need of. Such an arrangement will enable the well-read farmer to keep his crops all of an even quality during summer, stimulating those which may require it, &c.

All these ingredients may be bought with one twentieth the expense of transportation, and one tenth the cost to the purchaser that would have to be paid for them in the form of Patent Manures, and then they would be compounded in a manner to suit the crops, soil, &c. Thousands of dollars are annually wasted by the purchase of these nostrums, and a much larger sum from their failure to produce the promised effects. If farmers will not read or study, and must have a stimulating manure, to be used on all sorts of crops when required, let them prepare such manure as recommended in our last number, using a very small quantity of guano divided through a large amount of charcoal dust or other pulverulent matter; if the soil be subject to drought, or suffers habitually from its effects, add a little salt; if it refuses to grow beans, peas, and onions, add a little bone-dust and soot, if you have it. This mixture, or similar ones, will do well to drill in with turnips, carrots, parsnips, &c. Read our articles on manures attentively, and no difficulty will be found in forming the proper compound for each and every crop. — *Working Farmer.*

TO CURE A STIFLED HORSE.

J. B. Goddard, of Norwich, Connecticut, writes to the *American Agriculturist*, as follows: —

Take one gallon of urine, and put therein a small handful of junk tobacco; boil down to one quart; then add two ounces of oil spike, one ounce of oil of amber, two spoonfuls of spirits of turpentine, and two spoonfuls of honey. Put it into a jug, and cork it tight for use. Process of application: Rub the stifle-bone hard with the mixture fifteen or twenty minutes; then dry it in thoroughly with a red-hot fire shovel; then ride the horse forth and back one hundred yards. Repeat the above two or three times, and the cure will be effected.

FALLEN FRUIT.

Be very careful to gather all punctured or decaying fruits, whether on your trees or on the ground, and give them to your hogs. If you do not, the worms which they contain, and which have been the cause of their premature decay, will make their escape into the ground, and you will find the evils, which await their visitations, will increase upon you another season.

Domestic Department.

MATERNAL INFLUENCE.—If we would preserve our republican institutions from decay, — if we would transmit the liberties of freemen, and, to all appearance, the world's last political hope, to a posterity capable of guarding the sacred trust, — it is a truth, about which there is no debate, that we must have mothers of the right stamp. It is the mother who forms the character; it is she that bends the twig. It is the mother that instils her own principles into the opening and confiding mind; it is she that stamps the lasting impress upon the tender and warm feelings, which forms the basis of the subsequent character of the man and of the citizen. In vain may we enact wholesome laws; in vain may we establish a wise and republican system for the management of our national finances; in vain may we present to the world the show of a just and equitable republican government, wisely balanced and adjusted in all its parts, — if the worm of maternal ignorance and neglect should prey at the root. On what ground do the great pillars of our liberty stand? Is it not the instructions of the family circle — the impressions received in the nursery? Let the mother be addicted to fashion, vain show, idle visiting, and gay frivolity, to the neglect of the solid duties which devolve upon her, in relation to her family and her children, and they will grow up like the wild and poisonous weeds of the uncultivated field, rarely qualified for the enlightened and faithful discharge of their duties to the country.

Those influences which are silent, subtle, and unseen, are the most powerful. The dews of heaven fall in silence and unperceived, during the still hours of night; but they refresh and gladden the whole face of nature. The attraction of gravitation is a mighty power, which binds the universe together; but it is unostentatious and unseen. So is maternal influence; it is exerted amid the sacred and sequestered scenes of the family circle, but with a power which nothing can stay, and with an effect which nothing can destroy.

The philosopher, who, in some secluded haunt of a crowded city, works out those great truths, which give birth to revolutions and republics, is lost amid the glare and blaze of the practical statesman, who builds upon his foundation, and carries out his principles. Even the prudent and eloquent statesman, who furnishes the sinew and strength of war, is often forgotten amid the dazzling blaze of military glory which encircles the brow of the conqueror.

So, while the mother is not seen, and her fair fame may be utterly obscured by the brilliancy of her son's deeds, still it is her influence and instructions that constitute the fountain to which they owe their origin. — *Selected.*

SWEET FLAG PREPARATION.—We have received, from Mrs. Bela Hubbard, a specimen of the sweet flag preparation, to which allusion was made in the Farmer a few numbers back, together with the following recipe. We tender our thanks for the very agreeable treat; it is certainly quite a luxury in its way, and as healthful to the system as it is pleasant to the taste, the flag being thus divested of its pungency, while it retains its peculiar aromatic flavor in a mild form.

Recipe.—After peeling, slice the roots, put them into cold water, and boil until the strength is reduced to the degree that is desired; then make a thick sirup of sugar and water, in which boil the flag, stirring constantly, until the sirup becomes candied and dry, the flag being completely coated and saturated with it. — *Michigan Farmer.*

Boys' Department.

BUSINESS FIRST, THEN PLEASURE.—A man who is very rich now, was very poor when he was a boy. When asked how he got his riches, he replied, "My father taught me never to play till all my work for the day was finished, and never to spend money till I had earned it. If I had but half an hour's work to do in a day, I must do that the first thing, and in half an hour. After this was done, I was allowed to play; and I could then play with much more pleasure than if I had the thought of an unfinished task before my mind. I early formed the habit of doing every thing in its time, and it soon became perfectly easy to do so. It is to this habit that I now owe my prosperity." Let every boy who reads this, go and do likewise. — *Wright's Casket.*

THE GLOWWORM.—No two insects can differ more than the male and the female of this species from each other. The male is in every respect a beetle, having cases to its wings, and rising in the air at pleasure; the female, on the contrary, has none, but is entirely a creeping insect, and is obliged to wait the approaches of her capricious companion. The body of the female has eleven joints, with a shield breastplate, the shape of which is oval; the head is placed over this, and is very small, and the three last joints of her body are of a yellowish color: but what distinguishes it from all other animals, is the shining light which it emits by night, and which is supposed by some philosophers to be an emanation which she sends forth to allure the male to her company. — *Selected.*

Health.

BATHING.—We have already urged upon the attention of our readers the importance of frequent bathing or washing as a preservative of health and promoter of comfort; yet so negligent are most persons on this subject, that they need line upon line. As various disorders now prevail in nearly all parts of our country, and some diseases are severe and fatal, we again urge the importance of this simple and effectual remedy or preventive.

Frequent washing the whole body, and rubbing it thoroughly with a coarse cloth, keeps the skin clean and healthy, and keeps open the pores, so that the perspiration freely passes off. But if washing is neglected, the skin becomes foul, perspirable matter gathers upon its surface, forming a coat, and closing the pores, and the large amount of matter usually thrown off by perspiration is thrown back upon the intestines or vital parts, which, from the languid state of the system at this season, can hardly perform their usual functions, and they become diseased under too great a burden.

Thus a want of frequent washing is one of the principal causes of summer complaint, dysentery, fevers, cholera morbus, and Asiatic cholera. Now, is it not astonishing that people have a great fear of these diseases, which walk in darkness and waste at noon-day, and they continue to nourish this fear, which is the way to court disease, or induce it in the sys-

tem, by the power of the imagination, and yet they do not take the precautionary step to prevent it, by bathing and washing?

Prepare for every thing and dread nothing. We are in constant danger of sickness and death, but we should prepare for them and guard against them, but never fear them. It is sufficient to endure these ills when they come upon us, without becoming ill with the fear of sickness, and, like the coward, experiencing a thousand deaths in dreading one. Many persons in our country have not experienced a thorough washing for months, and some for years; yet they fear disease.

Every person, from the youngest infant to the aged and infirm, should wash thoroughly several times a week. He that does not do it is inviting disease by his neglect or indolence. There is no excuse, for every one has time and means to attend to it. If no other season can be found, take a few minutes from the time of sleep, on retiring at night. If no better convenience is at hand, every family is provided with water, a tub, and a towel, which are all the apparatus that is absolutely necessary, though shower baths and bathing tubs may be more convenient. Water of the same temperature as the air may be used at all seasons, with perfect safety, excepting by very weak invalids, who may find warm water preferable; but some invalids find cold water better. A room without artificial heat is warm enough to bathe in, even in the coldest weather.

Let every one ponder this subject well, and instead of sitting idle, and dreading the loss of health or life, in himself or family, let him arouse from his stupor, shake off that indolence or apathy that weighs him down like an incubus, and, as a man of common sense, use the simple means of cold water as a preventive of disease and death, which may invade his family from his own negligence.

It is worthy of remark that during the summer of 1832, when the cholera raged so terribly throughout France, and also during the present visitation, out of sixteen thousand two hundred and eighteen subscribers to the public baths in Paris, Bourdeaux, and Marseilles, only two deaths occurred among them. When it is considered that among these sixteen thousand two hundred and eighteen, of both sexes, there must have been persons of all ages and of all conditions, this remarkable fact speaks trumpet-tongued in favor of bathing.

DYSENTERY. — A very skilful physician recommends the following as an excellent remedy: "A tablespoonful, rounded, of crushed sugar, the same quantity of superfine flour, half a teaspoonful of carbonate of soda, (the same as used for raising bread in connection with some acid, as cream of tartar,) half a wine glass of good brandy, and a teaspoonful of essence of cinnamon. This is a dose for an adult. Stir all up in warm water, and take."

On checking the dysentery, warm teas, such as sage, pennyroyal, &c., should be given, with some warm medicine, like composition powder, and more

clothes applied, in order to get up a perspiration, that the matter which has tended to the intestines, may be thrown out in perspiration, and the whole system assume its usual functions.

If inflammation or soreness of the bowels prevails, a strong tea of raspberry leaves is very good. In severe cases, tenesmus, as it is technically called, is very common. It is a painful straining, with sensation to discharge, in the lower extremity of the body, frequently without discharges. This is owing to an inflammation of the rectum; and medicines administered have but little effect, as their virtues are spent before they reach the disease. As a remedy, use injections of lukewarm water, with one or two tablespoonfuls of salt, and the same quantity of crushed sugar to a pint of water. Or raspberry tea would be preferable to water. Use these injections daily, or, in severe cases, several times a day, while the tenesmus continues.

ENGLISH CHILDREN. — Mrs. Kirkland, in some notes of travel in England, thus speaks of the physical management of children in that country: —

"Pretty children one sees in abundance every where — and so nicely kept! It seems to us that nobody knows so well how to take care for the physique of children as the English. They feed them with the simplest possible food, and are astonished when they hear that our young folks share the rich, heavy, high-seasoned dishes of their parents. Oatmeal porridge is considered a suitable breakfast for infant royalty itself; and a simpler dinner at one o'clock, the proper thing for children whose parents dine sumptuously at seven. Exercise is considered one of the necessaries of life, and a daily walk or ride (not drive) in the fresh air, the proper form for it. It might be superfluous to notice any thing so obvious if it were not that so many people in good circumstances, with us, neglect this, and keep their children immured in nurseries, or cooped up in school-rooms, with no thought of exercise in the open air as amply requisite. We wish nothing so much for these benighted parents, as that they should once become acquainted with the habits and principles of a well-ordered English nursery. A reform in that quarter is very much needed among us, and we know of no people so well able to be our instructors as the English, who have certainly brought the nursery system to great perfection, both as respects the comfort and advantage of the parents and children. — *Selected.*

Mechanics' Department, Arts, &c.

ZINC. — This metal was first mentioned by Paracelsus; but its ores were known at a much earlier period. In commerce, it is often called *spelter*; and is obtained either from the native carbonate of zinc, called *calamine*, or from the native sulphuret or *blende* of mineralogists. These ores are roasted and mixed with charcoal or carbonaceous flux; the mixture is put into a kind of crucible closed at the top, and perforated at bottom by an iron tube, which passes through the grate of the furnace into water; the vapor of the zinc distils downwards through this tube, and is condensed in the water. The first portions are impure, containing arsenic, and often cadmium, in which case the vapor burns, with what the workmen call a *bronze blaze*; when the *blue blaze* appears, the zinc is collected. The zinc of commerce

(which is not quite pure) has a peculiar bluish color and lustre, a lamellar and crystalline texture, and its specific gravity is about 7. At common temperatures, it is tough and intractable under the hammer; and when heated to above 500°, it becomes brittle, and fuses at about 770°. But at temperatures between 220° and 320°, it becomes malleable and ductile; so that it may be beaten out under the hammer, and rolled into sheets and leaves, and drawn into wire, in a manner extremely remarkable when its highly crystalline texture is considered. Being a cheap and light metal, and one which, after having been superficially oxidized, long resists the further action of air and water, it has lately been much employed as a substitute for lead in lining water cisterns and covering buildings; it has also been lately employed in the curious operation of transferring printing, (under the name of *zincography*.) It is a very inflammable metal, burning in the flame of a spirit lamp with a brilliant white light; but the oxide which forms interferes with its continuous combustion, which can only be carried on at a high red heat, when the vapor of the metal burns with an intensely bright flame, and yields at the same time a quantity of flocculent oxide, which floats about in the surrounding air, and was formerly called *philosopher's wool*, *pampholite*, and *nihil album*. The equivalent of zinc is 32, and that of its oxide 40. Though zinc is apparently without action upon water, yet it is a most oxidable metal; but the insolubility of its oxide protects it from further action, so that when a film is once formed upon it, it resists further change; but when a little acid is present in the water, and the zinc not quite pure, it is rapidly acted upon, and oxidized at the expense of the water, which evolves abundance of hydrogen, (when dilute sulphuric acid is used,) and the oxide of zinc is removed and dissolved by the acid. It is this action which renders zinc so powerful a generator of electricity in the voltaic pile. The salts of zinc are mostly soluble, and have a nauseous, astringent, and metallic taste. The sulphate of zinc, or white vitriol, is employed in medicine as an emetic and tonic, and the oxide and carbonate are externally used in the form of ointment. The chloride of zinc is a colorless compound, fusible at a heat a little above 212°, and known to the older chemists under the name of *but-ter of zinc*. Brass is an alloy of zinc and copper. — *Plough, Loom, and Anvil.*

IMPORTANCE OF WELL-DIRECTED LABOR.

A single stroke of an axe is of little consequence; yet by the continual application of that small power, properly directed, what amazing effects are produced! The sturdy oak and lofty pine do not simply own its power, but whole forests lie before it, and the wilderness becomes a garden.

Industry, well directed, will give a man a competency in a few years. The greatest industry misapplied is useless.

As an example, there is my neighbor. Seth Steady, the blacksmith, is not only an industrious man, but his industry is applied to one object. His hammer is heard at dawn of day, and the fire blazes in his shop, during the evenings, from the 20th of September till the 20th of March. Go to his shop at any time of the day for any kind of work, you are sure to be waited upon. The consequence is, his purse is filled with dollars, and his cellar well filled with provision; and that's what I call quite comfortable. Although suitably liberal, and enjoying the good things of this life as he goes on, ten years of health will enable him to purchase a good farm.

As a contrast, there is my friend Nat Notional,

the busiest and most industrious mortal in existence; as the old saying is, "he has too many irons in the fire," and with all his industry, he goes behindhand.

He has a fine farm, but instead of pursuing the cultivation of it, he flies off, and seizes on every new project that occurs.

A few years ago, he concluded to give up the dairy business, in consequence of the low price of butter and cheese; sold his cows at a low figure, and purchased sheep at a high rate, for wool then demanded a high price. By the time he got fairly into the raising of wool, down went the price of wool, and up went the price of butter and cheese. He then sold his sheep, and purchased cows again, for cheese was up and wool was down. And finally, he changed his business so often, because he wasn't contented to thrive, little by little, as Seth Steady did, that he got completely used up, and is now only fit for California, or some other wool-gathering project.

So you see that well-directed labor is sure to meet its reward; while he who keeps a dozen irons in the fire, and none of them hot, will as surely meet with the fate of poor Nat Notional. — *Selected.*

VASES AND BASKETS OF GRASSES.

A well-stocked flower garden and a well-managed greenhouse are, certainly, very important aids in forming hand-bouquets, or those designed for display in baskets or vases. The great variety of delicate textures, of beautiful colors, and of delightful odors which they afford, is sufficient to hide many faults of arrangement, and to insure to any one the power of making something attractive. The white lily is always fragrant, the rose always cheerful and pretty, the heart's-ease always modest and unpretending, and honeysuckle always graceful. Put either of these in any part of a group of cut flowers, in the centre, at the top, at the sides, they are never out of place. The general effect of the whole will, indeed, be greatly heightened by each being placed in its proper position among its proper companions. The full bright face of the rose fits it for the centre; the humility and simplicity of the violet accords with a situation near the base, or lower edge; the erect and strong stem of the lily seems to lay claim to the summit; and a loose wreath of honeysuckle may surround the whole. Attention to such things as these is very important; but as respects the pets of the flower garden, it is not absolutely indispensable. Every body will love them, arrange them as you will. Even though thrown carelessly together, without the least regard to floral proprieties, they would still be pretty.

Good taste is the secret of success in these cases. And, by the exercise of a little of this quality, the most beautiful vase or basket bouquets may be made, without pretty flowers. The lady who possesses it may be, in some degree, independent of both greenhouse and garden. The meadows will yield her materials. A few weeks ago, I saw some baskets and vases in which were grasses of different kinds, and grasses alone, so arranged as to produce an effect exceedingly beautiful, — so beautiful as to excite me to hope that they might become much more common. — *Sartain's Mag.*

HILLS AGAINST LEVEL LANDS.

A correspondent of the Gardener's Chronicle says, "In a lecture on land surveying by a French professor on mathematics, at the college of Blois, the lecturer informed his audience that in the purchase of hilly or uneven land, its extent is estimated or measured, not according to the area of the surface,

but according to the area of its horizontal base; because, he added, 'it is a well-known fact in agriculture, that no more can be grown on a hill or slope than on a horizontal piece of land equal to its base.' Now, as this 'well-known fact' is not only not well known, but even strongly, though in my opinion absurdly disputed amongst many of our Yorkshire farmers, perhaps you will be kind enough to give it publicity in your next number. Perhaps of moss and other low or creeping plants, a greater crop may be grown on a slope than on a horizontal piece of land equal to its base; but with regard to vertically growing plants, such as hay-grass, corn, or trees, it appears to me that the French professor was perfectly correct."

HOW TO FEED SALT TO BEES.

After you make cheese, take the whey, and mix it with bran thick enough to allow the bees to stand on it without clotting their wings; place it in a trough or board six or eight rods from the hive; or take an empty salt barrel, and put into it a bushel of bran or two, pour in sour milk or water, make it firm enough so as the bees will not drown. From this they will extract the salt which will ooze from the barrel. As they empty the barrel of its liquid, renew it again. This will be of great service in dry weather to the bees. — *Michigan Farmer.*

OBSERVATION ON THE MILLER WHICH ANNOYS BEES.

Last season, I allowed about six sunflowers to grow near my beehives; when in flower, they attracted the miller, which fed on them late in the evening, appeared quite stupid, so much so, that I could pick them off with my hand and deal with them as I would wish. I am now trying several experiments: with my bees, the result of which I will make known through the Farmer.

— *Michigan Farmer.*

SINENSIS.

MONSTER APPLE-TREES.

There is an apple-tree on the estate of Joseph Briggs, on Federal Hill, in the town of Dedham, supposed to be a hundred years old, which measures thirteen feet and a half in circumference, one foot from the ground. Its branches cover an area of about sixty feet in diameter. This tree is second only to that in Duxbury, which is sixteen feet in circumference a foot or two above the surface of the ground, is over one hundred years old, and bore in one year fruit which made ten barrels of cider, in addition to thirty barrels of apples put in the cellar.

— *Boston Traveller.*

BLACK SHEEP.

A neighbor selected a very likely young ram which he designed "turning out," and at shearing time made known such intention to his "headman," Peter. The shearing being over, Peter came to his master and said the lamb he had selected would not do to "turn out," unless he wished to have black sheep in his flock. "How do you make that out, Pete?" said his master; "the lamb is the whitest in the flock." "That may be," replied Pete; "but I tell you half his lambs will be black, for he has a black streak under his tongue." The master and myself, in talking upon the subject, came to the conclusion that a greater man than Pete had advanced the same opinion, and ac-

ordingly we picked up an old Virgil and commenced the search. After no little trouble, we found the following: — (Geo. 3, 387.)

"Illum autem, quamvis aries sit candidus ipse,
Nigra subest udo tantum cui lingua palato,
Rejice, ne maculis infuscet vellera pullis
Nascentum."

The English of which, I presume is, But, though the ram himself may be white, reject him under whose moist palate there is a black tongue, that he may not darken the fleeces of the lambs with blackish spots.

Whether Pete borrowed the idea from the "Mantuan Bard" or not, is a matter of no consequence. The question for you, Mr. Botts, or some of your correspondents, is, Is the idea correct? We have, you see, the opinion of a "book farmer" and a practical one — of an ancient and a modern one — a great man and a little one. — *Southern Planter.*

MUSCULAR STRENGTH.

The muscular power of the human body is indeed wonderful. A Turkish porter will trot a rapid pace, and carry a weight of six hundred pounds. Milo, a celebrated athlete of Crotona, in Italy, accustomed himself to carry the greatest burdens, and by degrees became a monster in strength. It is said that he carried on his shoulder an ox four years old, weighing upwards of one thousand pounds, for about forty rods, and afterwards killed him with one blow of his fist. He was seven times crowned at the Pythian games, and six at the Olympian. He presented himself the seventh time, but no one had the courage to enter the list against him. He was one of the disciples of Pythagoras, and to his uncommon strength the learned preceptor and his pupils owed their lives. The pillar which supported the roof of the house suddenly gave way, but Milo supported the whole weight of the building, and gave the philosopher time to escape. In old age he attempted to pull up a tree by its roots, and break it. He partially effected it; but his strength being gradually exhausted, the tree, where cleft, reunited, and left his hand pinched in the body of it. He was then alone, and, unable to disengage himself, died in that position.

Haller mentioned that he saw a man, whose finger caught in a chain at the bottom of a mine, by keeping it forcibly bent, supported by that means the whole weight of his body, one hundred and fifty pounds, until he was drawn up to the surface, a distance of six hundred feet.

Augustus II., king of Poland, could roll up a silver plate like a sheet of paper, and twist the strongest horse-shoe asunder.

A lion is said to have left the impression of his teeth upon a piece of solid iron.

The most prodigious power of muscle is exhibited by the fish. The whale moves with a velocity through the dense medium of water that would carry him, if continued at the same rate, around the world in less than a fortnight; and a sword-fish has been known to strike his weapon through the oak plank of a ship. — *Selected.*

ON CUTTING OUT HOOKS OR HAWS.

Before I was acquainted with this subject, two years ago, I had two young horses sacrificed to this mistaken and ruinous operation. Ignorant quacks do not know that the horse has a membrane peculiar to the animal, which is at pleasure drawn over the eye. The enlargement of this, by a fever, produces the appearance, which, in jockey slang, is called the *hooks*. Reduce the fever by depletion, such as bleeding plentifully, purging, &c., and have the

horse well rubbed, and the hooks will disappear; that is, the membrane is restored to its natural size and office, which is to clear the eye from dust, &c., accidentally entering it. I need not mention the cutting out of this useful membrane unnecessary, as I have proved the uselessness of this operation by restoring a horse without it a few days ago.

W. V. MURRAY.

— *American Farmer.*

ACKNOWLEDGMENTS.

We are indebted to Hon. D. P. King, for the Patent Office Report of 1848. It is a large work, of over 800 pages, which we have not had time to examine. It is illustrated with very fine engravings.

From Hon. Rufus M'Intire, Parsonsfield, Me., president of York Agricultural Society, half a bushel of Kloss Blue Stem, white winter wheat, for distribution. We have already distributed a part of this grain, and we shall be pleased to furnish, in small parcels, the rest to those who would experiment upon it. This wheat has succeeded well with Mr. M'Intire for a few years, when sowed in season, say the last of August. The first of September would be in season here. Late sowing will sometimes succeed well, but it is not so sure. The reader will find some remarks on this grain on page 11th of this volume.

From Mr. John M. Ives, two or three weeks since, Summer Rose apple, which is one of the most beautiful, and a fine fruit for the garden; Summer Queen, a fine cooking apple, and pretty good for the dessert, but not first rate; Ives's Sopsavine, which is a very handsome early apple. Medial size, roundish-conical; pale yellow, nearly covered with bright red; of a fine flavor, and very promising.

From John Washburn, Esq., Plymouth, the Watson pear, a native of that town. Size medial or small medial, flattish-obovate; yellowish russet; flesh tender, melting, and of a fine spicy flavor, grown on the pear; on the quince stock, it is inferior, which is another evidence of the effect of the stock on the fruit of the scion.

Plums of Mr. John C. Hewins, Dorchester, under the name of Roe's Autumn Gage; but they are not true to the mark. It is, doubtless, Cruger's Scarlet, a very productive variety, and pretty good for market. Roe's Autumn Gage is of a pale yellow; it ripens later in the season, and is one of the most valuable kinds cultivated, and particularly profitable from its lateness, as well as for its good properties.

Of Mr. L. M. Hayes, Farmington, N. H., a seedling apple, of his raising. It is very fair, handsome, and pleasant fruit. As it was gathered before fully ripe, we cannot judge precisely of its quality.

From Egbert Cowles, Farmington, Ct., pleasant native grapes, of good size and early maturity, which he regards as among the most desirable of several varieties. They are from the seed of the wild grape. By frequently planting the seed of the wild vine, and its product, a great improvement can doubtless be made. Any information from Mr. C., concerning the Charter Oak grape, will be very acceptable.

For the New England Farmer.

THE OLD FAMILIAR FARM-HOUSE.

BY MRS. E. C. LOOMIS.

The old familiar farm-house is falling to decay,
And those who were its inmates have long since
passed away;
Yet round it fondly lingers full many a vision bright
Of childhood's sunny moments, so fraught with pure
delight.

The old familiar farm-house! Its lofty, ancient trees,
Which catch the earliest sunlight, and wave in every
breeze,
Like sentinels are standing, their lonely watch to
keep,
While he whose fingers trained them has sunk in
death's long sleep.

The old familiar farm-house! Its garden once was
fair,
With many a blooming floweret; but weeds are rank-
ling there,
And tangled vines, neglected, o'er broken arbors
cling,
And from their matted foliage the household robins
sing.

The old familiar farm-house! Alas! 'tis desolate!
No words of cheering welcome the wearied traveller
greet,
And from its ample hearth-stone there comes no
voice of glee,
No gush of childish laughter, no song of melody.

The old familiar farm-house! It wakens memory's
spell,
And tells of by-gone pleasures, remembered, O, how
well!
And though 'tis now deserted, and will soon in ruins
lie,
Sweet visions round it cluster that cannot fade and
die.

LEBANON, Ct., August, 1849.

THE OLIO.

Some one called Richard Steele the "vilest of mankind." He retorted, with proud humility, "It would be a glorious world if I were."

Some descendant of Solomon has wisely remarked, that those who go to law for damages are sure to get them.

ABSURDITIES.—To fancy that you are writing poetry, when you are only making rhymes. To tell your own secrets, and believe that other people will keep them. To buy a child a drum, and punish him for beating it.

TERMS.—THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

☞ THE POSTAGE ☞

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.

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DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I. SATURDAY, SEPTEMBER 29, 1849. NO. 21.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

ANNUAL EXHIBITION

OF THE MASSACHUSETTS HORTICULTURAL SOCIETY.

This show took place last week; and considering the great scarcity of fruit, it was very good. The exhibition of apples was small, not so much from there not being a plenty of good specimens for a large show, as from the great scarcity with those who usually take much pains to contribute largely to the fair. In pears, it was rather limited; but so far as it extended, it was excellent, as many dishes were very fine. The exhibition of peaches was excellent, notwithstanding the crop is very light in this region. In grapes raised under glass, it was very fine: one bunch, raised by J. F. Allen, Esq., Salem, weighed four and a half pounds. There was a variety of fine plums.

In vegetables, the show was the best that has ever been made by this society, at least for many years. It was both extensive and excellent in appearance.

The show of flowers was very good: there were various beautiful and some splendid bouquets, and some rare specimens of flowers. The crimson cockscombs, exhibited by A. M. Sumner, Watertown, were the largest of this class that we ever saw, measuring over a foot across them. They attracted great attention.

Although the exhibition has been, in some respects, less attractive than usual, owing to natural disadvantages, beyond the control of the most skillful, we are happy to learn that cultivators are continuing their exertions, determined to do their part in promoting the cause of horticultural improvement, and their labors will usually be crowned with success.

WORCESTER CATTLE SHOW.

This exhibition took place on Wednesday of last week. On the whole, it was excellent. The day was fine, and the concourse of people was immense. On the evening preceding, all the public houses in the place were full; and on the morning of the exhibition, long trains of cars literally packed full of passengers, in many cases far more than could be

seated, were seen coming in from every direction: extra trains were run, and freight cars were put in requisition, and rigged for the accommodation of passengers; and besides, there were many who came in their own or other vehicles. When about half as many attended the shows at Worcester, the number was estimated at eight or ten thousand.

In the ploughing match, there were only a few competitors, only ten teams being on trial, which is a small number for a county that produces a larger number and better teams, and far more ploughs, than any other in the Union, with the best of men to manage teams and ploughs. With all the materials in abundance for a great as well as good ploughing match, there ought to be forty or fifty competitors. But what there was of this match was excellent. The teams were fine and well trained, and the ploughmen skilful. They went about their work in a quiet way, and attended to it like a discreet farmer in his own field. There was no noise, nor hurrying. The work was done in the best manner, and of a good depth, though the stones at the bottom of the furrow were often troublesome. We hope that in future there will be more zeal in this cause.

The show of stock was both excellent and extensive. There were about one hundred pens of animals, mostly of neat cattle. They were of various breeds, and mixtures in many ways. This county still holds the lead in fine stock, and there is at present great attention paid to its improvement, so that it bids fair to sustain its well-deserved and high reputation. A Durham bull, one year old last March, owned by Hon. John Brooks, Princeton, weighed thirteen hundred and fifty pounds. We saw no horses at this exhibition, which is truly astonishing, considering the horse is regarded as one of our most useful and interesting animals, selling at a higher price than any others.

There were fine specimens of dairy productions; but the show in this department was rather limited for a county of so wide an extent and such abundant resources in this respect.

The show of machines and implements was fine; but the mechanics' fair, held at the same time, proba-

bly took a part of this department, and articles of domestic manufacture were shown in the mechanics' fair, or in the ladies' fair, held simultaneously. There was no formal address, and we did not attend the society's dinner, as our time was rather limited for visiting the various exhibitions in one day; and though a dinner might have been more interesting to us at the time, we thought that seeing was more in our line of duty as an editor. We understood that at the dinner table there were pithy speeches, and some sparklings of wit.

ANNUAL EXHIBITION

OF WORCESTER HORTICULTURAL SOCIETY.

We visited this show, last week, and were highly gratified at the excellent display in some departments, particularly in peaches, as it gave evidence that we can cultivate this luscious fruit to advantage in New England, and furnish our markets with it in far better condition than those brought from the south and west.

The show of apples was good, and for a year of general scarcity, much better than we expected to see in any part of the country.

The exhibition of pears was rather limited; but there were many fine specimens, and among them the St. Michael appeared in perfection. It seems to be free from blast in that section, this season. The president, friend Earle, of the Spy, informed us that their show of pears was about as good as usual; excepting, heretofore, fruit-growers from this region had added much to it by their contributions. He also stated that some cultivators in Worcester had good assortments of excellent pears; but from being too busy, or some other cause, they had not brought forward their fruit.

The show of peaches, both in extent and appearance, in size and beauty, was equal to any that we ever saw. Among them were several new seedlings, very large and beautiful, and which the committee pronounced of superior quality.

There was a very good variety of plums, and generally of very good appearance.

But few grapes were shown, excepting native kinds, mostly of inferior quality.

The quince made a conspicuous and handsome appearance.

The show of flowers was very respectable, but not so varied and extensive as are the shows in large cities, around which are extensive greenhouses.

There was a very good exhibition of vegetables in some departments. The squash seemed to take the lead. There was a large number of superior size.

Although this society is in its infancy, it is succeeding remarkably well, and would compare favorably, in its exhibition, with those of mature age. It is exerting a very salutary influence in one of the first fruit regions in the country, by diffusing useful information, and stimulating cultivators to judicious action; and those who avail themselves of these advantages will reap a rich reward for their pains.

FAIR

OF THE WORCESTER COUNTY MECHANIC ASSOCIATION.

The second annual fair of this association opened last week. We were agreeably surprised to find the exhibition of a society, that had just started into existence, so extensive, various, and presenting articles of so much utility and taste. A large building, of many stories, was well filled with valuable productions of genius and skill. When we look at shows of this character, we think not only of the enterprise of one location, but we look upon it as a specimen of what is going on in our country, and upon its wide-spread influence, which, with the wonderful facilities for communication, is exercising a controlling power over the whole world for the general good of the human race.

It was highly gratifying to see all parts of this fair crowded with visitors, both from its salutary effect in diffusing information in the useful and fine arts, and for the liberal encouragement given to an institution in its early stages.

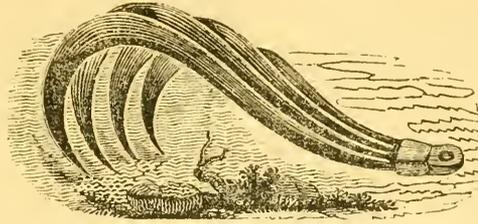
We saw in operation, in this fair, a glass pump, by Messrs. E. Tucker & Son, of Worcester. It showed clearly the principle of hydraulics in this particular. In a place not exposed to frost, and with careful management, this would doubtless be one of the best and most durable of pumps; and freezing is easily obviated during a cold night, by raising the handle and springing the under valve, so that the water recedes from the pump immediately.

Connected with this fair, on the outside of the building, were two hydraulic rams in operation, by Messrs. J. T. Curtis & Co. The water power was in leaden pipes, about one and one half inches in diameter, and the fall about four or five feet. Constant streams, of about one third or one half inch in diameter, were sent up about thirty feet high. This novel view of water running up hill attracted great attention, particularly as it is a matter of great practical utility.

AMERICAN ENTERPRISE.

Take the article of calicoes. We now monopolize the whole trade — a trade which, but a year since, the English had the whole control of. Very few cotton goods of this style are now imported at all, and we are fast getting the knack of making the finer dress muslins. Of mouslaine de laines, we probably manufacture, at a good profit too, far more than we import. Of cloths there is not one bale of English entered at the custom-house, where there were one hundred five years ago. It is true the English have found great competitors in the French and Germans, who, together with our own mills, have nearly driven every piece of English cloth out of the market.

The English are also losing their great hosiery trade with us, the Germans beating them most decidedly in this article. In fact, our English competitors are fast losing a market which they have had the almost exclusive monopoly of for years; and a steady perseverance on our part, not depending too much on government aid, but more on our natural energies, perseverance, and mechanical skill, will in time not only give us our "home market," but the markets of the world. — *N. Y. Jour. of Commerce.*



THE BUSH AND ROOT PULLER.

This implement greatly facilitates and expedites the labors of the farmer in clearing lands, and holds an important place with those cultivators who are thorough in their operations, and make their grounds clear for a tilled crop, or for mowing. With this implement, it is very convenient to fasten to bushes and roots, and any power in the team may be applied for their extraction. This saves the tedious process of digging around shrubs and roots, and preparing for fastening on chains, which often requires far more time than is necessary to complete the work with this simple and cheap implement.

ON GIVING CREDIT.

We intend to give credit for articles which we select; but we are liable to mistakes and omissions, for we often select good articles from papers in which there is no credit. Again, we see articles inserted in papers as though they were original in such papers, and we give a wrong credit. We may have seen the articles months before, but cannot recollect the origin of every one we see, and bear it along in our memory for months and years.

On our 263d page is an article credited to the Lancaster (Pa.) Farmer, that should be credited to the Albany Cultivator. It appeared in the former paper without credit, and as though it was new, and we credited it accordingly, not recollecting that it was in the latter paper six or eight months ago. On page 301 is a valuable article from the Albany Cultivator, which, by unintentional neglect, was not credited at the latter end, though in the beginning it is credited to The Cultivator, all the title which that paper assumes, but we choose to be more definite than the publisher himself, and assign the articles from that source to "a local habitation and a definite name." We hope that our friends will excuse these errors, which we intended to correct before.

No person has more reason for complaint than we, in this respect. Within nine months we have seen more than fifty of our articles going the rounds of the press without credit; in some cases, two or three articles in one paper. Sometimes this seemed almost excusable, as in the same papers were several articles that were credited, and the editors might think it would not appear well to credit five or six articles to one paper. We have been pleased to see that

editors have extracted very liberally from our columns, but we shall be still more gratified if they will give due credit.

THE COMMON HEMLOCK FOR HEDGES.

Attention is now being directed to the common American hemlock as a substitute for the thorn and other deciduous shrubs, in hedges. It has been subjected to reiterated trials, it is said, in various localities where it is indigenous, and, in every instance, with the most entire and complete success. It has many things to recommend it; among the more prominent of which may be mentioned its great hardiness, and the slight injury, comparatively speaking, it receives from transplantation. It is also well adapted to almost every variety of soil, and will flourish with great luxuriance on ordinary lands without previous preparation or manure. Extensive lines of this beautiful hedge are to be seen in various sections of Western New York, where its cultivation has been attended, thus far, with the most astonishing success. As the tree is an evergreen, its appearance is necessarily, at all seasons, extremely ornamental, presenting, in its full, dense foliage, a most refreshing contrast to the dreary monotony of the winter scene, and adding, by its many attractive beauties, to the leafy glories of the spring, and the affluent summer months.

It is asserted, on reliable authority, that of all trees and shrubs yet applied for this purpose, it is the most certain of success; being less liable to injury from the ordinary evils which so frequently prove fatal to the thorn, the locust, and other cognate species of plants, and in no ways objectionable in consequence of root-sprouts, by which the above-named productions foul the contiguous soil, and produce a suburban progeny, extremely detrimental to cultivation, whether directed to the production of root crops, grain, or grass. We hope, ere long, to see this valuable, but hitherto neglected denizen of our forests, rendered extensively available for this most important use. It will come to our assistance in a "good time," if it comes now, when, from the increasing scarcity, and consequently increasing demand for fencing materials, the resources of the community are severely taxed to supply the costly demand. — *Selected.*

HOPE

A bright and beautiful bird is Hope; it comes to us 'mid the darkness, and sings the sweetest song when our spirits are saddest; and when the lone soul is weary, and longs to pass away, it warbles its sunniest notes, and tightens again the slender fibres of our hearts, that grief has been tearing away.

For the New England Farmer.

A NICE POTATO PATCH.

MR. EDITOR: Having recently made a flying excursion through a section of the granite state, the interests of agriculture received a due share of my attention. It was indeed a flying excursion, for with the present well-arranged facilities for travelling in that direction, no other term would express the speed with which one may progress. Such is the perfection of these facilities, that it might seem that no further advance can be made therein, unless bales of merchandise and cars of men, women, and children, shall hereafter be transported on magnetic wires, as we now send billet-doux and price currents; a thing not very probable, but as much within the imaginings, as the other was twenty-five years ago.

However, my object is not to give an essay on the wonders of steam or electricity, or even of their consequents in the growth of villages and cities, as if under the influence of magic. Here, indeed, the field is ample, and is filled with incident surpassing the utmost limits of romance in the past age. What would then have been considered high-wrought fiction is beginning to appear tame and insipid, compared with the real wonders in science and art, now as familiar as household words. It is a truth which receives universal homage, that the human intellect is just waking up from a deep sleep — is just, as it were, bursting asunder a prison-house which bound it with a despotism as firm as the body may be enslaved by statutes, and chains, and bars of iron. We behold its achievements, but cannot, at first, feel that they are realities. We are half inclined, notwithstanding the evidence of our senses to the contrary, to suppose the whole a mere dream of delusion.

Nor is this effervescence of genius, if it may be so termed, confined to the use of steam, of magnetism, or mechanical power. The bosom of the earth, as if under some hitherto unknown spasmodic influence, is participating in kindred developments. It was feared that the eastern portion of our country was worn out and become worthless, like an old garment. Such is not the fact. We are beginning to witness results in agriculture as unexpected and as much surpassing calculation, as those in science generally and the mechanic arts, to which allusion has been made. Who, a few years since, would have dreamed of here raising forty tons of turnips, or eleven hundred bushels of carrots, on an acre of land? Who would have thought the means of fertilizing it so simple and so abundant? The processes of our fathers in agriculture were seemingly as inefficient as were those in machinery; and now the farmer who undertakes to produce corn, or hay, or esculent roots, with as little regard to fertilizing agents as they had, would be esteemed as much behind the age, as to transport his produce two hundred miles by an ox team requiring two full weeks, when he might do it in two days on a railroad, at a fourth part of the expense.

On reaching the capital of New Hampshire, knowing that Ex-Governor Hill, for the last ten years, has devoted himself mainly to agriculture, we were induced to call on him, to witness his success. This we did not doubt; for a man that once understood political management so well as he did, would be abundantly competent, if disposed, to cultivate the ground. We were not mistaken. Our anticipations were realized. We were richly paid for the delay occasioned. Governor Hill, like a man of sense, no more digs in the filth of politics. For the period named, he has done little of such labor, unless to pick

a good bone that may have been thrown to him. Now, dear Whig reader, do not be alarmed. Isaac Hill, if a Democrat, is raising as good hay, and corn, and rye, and squashes, and potatoes, as any Whig in the state. Yes, according to recent calculation, he is raising this very year twice as many potatoes as are growing on the farm of Daniel Webster — good Whig potatoes, not a rotten one to be found in the whole field. We wish politicians generally would follow the example of these two gentlemen in the particular of which we are speaking.

We had no sooner exchanged civilities than an invitation was given to accompany him on an excursion over his farm. The invitation was of course accepted. In a few minutes, we were on a drive to his farm, lying mostly on the eastern side of the Merrimac River. His farm consists of three or four hundred acres of land — we were not particular to take notes, as we now wish we had done — perhaps a sixth part of the rich interval on the west bank of the river, and the balance of sandy pitch-pine land. The latter, till his own experiments with it, was deemed worthless for agricultural purposes, and cost him only about five dollars an acre, timber and all. The timber was worth more than the cost of the land. We believe it is five or six years since he began to cut the timber and to till the soil. Ten or fifteen acres annually yielded to the axe and the harrow, and a good crop of rye was the result. Succeeding to this, the plough with a span of horses, and a subsoil plough with six oxen, among the roots and stumps of trees, upturned and loosened the upper strata, to the depth of sixteen inches. A muck bed in the vicinity contributed freely its fertilizing properties, and good clover rewarded the enterprising proprietor for his labor. Next in order comes a crop of potatoes; and, it would be difficult for any one, who has not witnessed it, to realize, what skill and indomitable perseverance in agriculture can accomplish. Although we were delighted with his subsoil ploughing then in progress; with a large rye field; with several Indian corn fields; with barns filled with hay that would have elated the largest farmer in the country; yet we most admired his potato field, on this pine timber land, which we had known from childhood, and considered worthless.

Perhaps of this description of land there were under cultivation, in the same or contiguous enclosures, about sixty acres, and one third of it composing the potato patch in question. Our impression is, that no manure had been used on it, but a compost made in the ordinary manner, and a moderate quantity of African guano; yet, what potatoes! We pulled up samples here and there all over the field, and found an increase upon the seed of about twenty per cent. in weight, and in some cases numerically; that is, twenty new tubers for the single one used for seed. What he has already dug, and from the produce last year of an adjoining patch, he estimates his crop this year at four thousand bushels. As soon as harvested, they are to be conveyed to Boston by railroad, a distance of sixty miles, and deposited in cellars till demanded in the market, then yielding him, it is estimated, — such is their excellence, — at least one dollar per bushel; or four thousand dollars for the entire crop this season. What an example for the imitation of his neighbors and fellow-citizens! What an example, especially, for retiring politicians, and retiring merchants or professional gentlemen! Here, the wane of life, rich in varied experience, and with means to impart it to others, may continue, to its very termination, to bless the world; and hence, in the retrospect, to yield to those who do it the purest delights. And, by the increased mental and physical verdure acquired amidst rural avocations, they may add a large percentage to the number of their own years, as well as to their joys; thus making

human existence full to its very brim in useful labor and fruition, as God designed it should be.

He stated that, in round numbers, the labor bestowed on his farm this year costs about seven hundred and fifty dollars, in addition to the use of his teams, which, if he hired them, might be two hundred and fifty dollars; making, in all, one thousand dollars. His expenditure for manures was not given; but we hope that on the termination of the harvests, he will give a full and authentic account of his farming operations. Such accounts are of immense value to the community. By them others will be stimulated to make similar efforts. Our time was too short to avail ourselves of the statistics necessary for such an account. Our aim, on the present occasion, is only to call attention to the subject, and to show in what manner persons making a trip to the White Mountains or elsewhere, for health or pleasure, may collect and then disseminate agricultural knowledge. For ourselves we believe that observations similar to those here given, are among the most rational and useful means to promote the aim of the summer tourist; and surely they may be made subservient to the best interests of the country.

One word more. In the time of Queen Elizabeth, men of rank, to ornament their heads, wore heavy wigs, and to ornament their wrists and hands, they wore wide ruffles. Many of our old-school farmers, as if in imitation of that fashion, have allowed around their cultivated fields broad margins of brush wood and shrubs, doubtless for ornament; unless it be in kind charity to furnish a comfortable shelter for snakes, and skunks, and rabbits. In this matter, Governor Hill is an ultra radical. Instead of permitting such an ornament even on this sand land, about his potatoes, all is grubbed up; and, instead thereof, is a row of summer and autumn squash vines, which have furnished about fifty barrels of excellent fruit for Quincy Market.

FLEMING GROVE.

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For the New England Farmer.

FALL PLOUGHING.

MR. EDITOR: I believe it to be of great importance to have greensward broken up in the fall. The cool weather then gives strength to our teams, so that they can perform the same work in less time; besides, it being a season of comparative leisure with the farmer, time is not so valuable as in the spring. Another advantage of fall ploughing is, many kinds of soil are brought into a suitable condition for crops with less labor. By the action of the frost, clayey and other compact soils are more thoroughly and uniformly pulverized than they could be in any other way; and if the ploughing is performed in September, or by the 20th of October, which I think is the best time, the fermentation which the turf undergoes will do much towards destroying or lessening the strength and vitality of the roots of grass.

I am confident that lands are generally improved by deep ploughing, and more especially so in the fall. Unless the land has formerly been ploughed remarkably deep, the plough should run so as to turn up from one to two inches of subsoil, or soil that has never been brought to the surface. Many farmers, I am aware, do not approve of breaking through what is termed the "hard pan;" but experience has led me to believe that, in the end, the productiveness of the surface soil is usually improved by being mixed with subsoil; and when it lies upon the surface for some length of time, as is the case when ploughed in the fall, it absorbs fertilizing elements from the atmosphere, and under the influence of frost, light, and air, a chemical change is wrought that adds to

the fertility of the soil. By shallow ploughing in the fall, I think more is lost than gained as it regards fertility. It is only when soil is brought to the surface that has not been acted upon by air, light, and frost, that its productiveness will be increased by fall ploughing.

The fertility of much of our light soil, in my opinion, might be permanently augmented by deep ploughing. It is very essential for the successful cultivation of nearly all crops, that the soil should be a deep one. In such soils, the roots will be more extended and multiplied; and this must necessarily give a more vigorous growth to the plant. And then, again, crops grown upon a deep soil are far less liable to be injured by drought or wet weather. The roots will penetrate and draw a supply of moisture from the earth long after it is denied it from the clouds; and when it is excessively wet, the earth will drink up the water, when in light soils it would flood the roots of plants; and for the same reason, deep ploughed lands are much less liable to be washed and gullied.

It is my usual practice to plough old lands, intended for wheat or oats, in the fall. It can be done then with less expense, and I sometimes wish to get in such crops before the frost upon all parts of the land is sufficiently out to admit of ploughing.

Greensward broke up in the fall should be rolled and harrowed. Unless the ground is very smooth, rolling will be necessary to prevent the harrow from inverting the sod; and the principal benefit of harrowing is to fill up the interval between the furrows, and thereby prevent the escape of gas evolved while the turf is undergoing fermentation. I should have remarked, when speaking of the season of ploughing, that it is not advisable to plough mowing lands immediately after they are mowed: they should have time to throw up a good coat of fresh grass; and for the same object, it would be well to have pastures unfed for several weeks before ploughing. I believe the turf turned under, when well clad with green grass, is equal to half a dressing of manure, or twenty loads per acre. This I think is a strong argument in favor of the practice of breaking up and seeding land every four to six years.

EBENEZER BRIDGE.

POMFRET, VT., Sept. 12, 1849.

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For the New England Farmer.

SCRIBBLINGS FROM THE PEN OF A FARMER.

MR. EDITOR: My father was a farmer, a carpenter, and a cooper, although farming was his principal business: he toiled, perhaps, as many hours in a day as any other man in his neighborhood. In the year 1801, he emigrated from the town of Woodbridge, Conn., and settled in the town of Butternuts, in the state of New York, where he purchased a farm of one hundred and nine acres of wild land, for which he paid, or agreed to pay, five hundred and forty-five dollars, although he paid down only one hundred dollars, being the total amount he possessed, and which he took with him from Woodbridge in silver coin, tied up in a stocking. Here he commenced operations (or I should have said *they*, as a young man, who emigrated thence with him, purchased a farm joining that of my father's) by putting up a simple log hut about on the line between the two farms, in which they lived, and did their own cooking and washing. Pork, potatoes, and brown bread constituted the principal part of their living. I hardly dare tell the quantity of pork they consumed in the course of the summer; but I would say this much, — *one* barrel did not carry them out.

Many pleasant evenings have I passed in listening to the little incidents that transpired during their bachelorship, in this mode of life, the narration of which I shall not here trouble the reader with.

Few young men of the present day would think of leaving their New England homes — the land of their infancy and boyhood — to settle in the unbroken wilds of the west, unattended by a helpmeet and companion. It is true that it is a great undertaking, and but few of those who have always lived in a thickly-settled country, surrounded with all the comforts of civilized life, know but little of the toils and privations which the new settler has to undergo, — the scanty pittance which he has to subsist upon before he gets his land under a state of cultivation. But, after all, there is something pleasing in the idea of being the original founder of one's own homestead. In the onset, the prospect would indeed look gloomy; but hope stands by him, and points him onward; and with courage and perseverance in his every nerve, and strength in his muscular arm, his prospects are soon bright before him. The future is radiant with smiles. He sees in his mind's eye all that his heart can wish. His forests are prostrated by his uplifted axe, and bright fields and waving grains are exposed to his view. He sees his simple log hut constructed into a beautiful cottage; barn, and out-buildings skirting the premises, and every thing in neatness and order. Thus favored, he goes to work with all the energy of a Hannibal scaling the Alps; and ere many summers shall have gone by, the new settler has the satisfaction of seeing his hopes realized, and his labors crowned with success. * * * *

Renewing the subject I have previously left, I shall continue my scribblings still further. Years passed on. My father had a large family growing up around him. As his forests were converted into fertile fields, and teemed with growing crops, there was plenty of work for himself and boys. When it was suitable weather to work, the old gentleman with his boys (in numbers sufficient to keep six or eight teams at work) were busily engaged in tilling and improving the land. In stormy weather, he would take his little army into his workshop, and set them to work at something. He meant all of his boys should learn the use of tools, and a wise idea it was, too. Sometimes the boys (counting myself one of the *eight*, all now living and grown up to manhood) would complain bitterly because they had to work rainy days and all; but now, when I look back to those days of my boyhood, I feel no desire to complain, inasmuch as I have had cause to be thankful many times for the knowledge I then gained by being thus employed these "rainy days." As boys generally think, so thought I, that I should not be a farmer when I was old enough to act for myself; neither did I think I should be a carpenter or a cooper. Time passed away; the long-desired time came that was to make me my *own* man. It was indeed a bright period in my life. I well remember the day I left my father's roof. I have said it was a bright period — but I must retract. *That* day was not *all* brightness to me; I felt what others no doubt have felt — that I was leaving my *home*.

But I yielded to my previous resolutions. I did not have the western fever, as many young men did at that day, but I was bound for New England — "the land of the forest and the rock." I had no idea of clearing up wild lands, or of being a farmer in any shape. I had read and heard much of Dr. Franklin — of his travelling the streets of Philadelphia in pursuit of work in the printing business. I had my mind made up that this was the business for me. I accordingly bent my steps to Rhode Island, where I engaged myself in learning the printer's art, to me rather of a *black* art for a while, — for I was kept a good share of the time blacking the face of

type with ink. I soon got above this, however, and made very good progress at the *case*; but I soon found *this* was not the business for me. I could not bear confinement and the midnight lamp. It seemed to wear upon my constitution more than laboring upon the farm; and after following the business steadily for upwards of four years, and wasting the better part of my constitution, (as I then thought,) I gave up the business, and moved on to the little farm I now occupy, and which I would not exchange for all the printing offices in New England, were I obliged to labor in them as I used to do. I was never born to be confined. My home is the country: here I love to labor and enjoy the pure air of heaven. I have no desire to exchange for the pent-up, crowded city.

How different things seem when compared to the days of my boyhood! Then I *knew* I should never be a farmer. But changes will and do take place. I have now but little need of a carpenter, or a cooper, as the little knowledge I gained of my father (many thanks to him) during those "rainy days" has proved of invaluable service to me in later years. In conclusion, I would here add, let no young man despise farming, as beneath his dignity. It is not only a lucrative business, but it is also a healthy and independent business; and as for its being an *honorable* occupation, we all know that there is no other business in the known world that stands in higher repute. I may continue my scribblings.

Yours with respect, A. T.

SMITHFIELD, R. I., August, 1849.

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For the New England Farmer.

COMPOSITION FOR GRAFTING.

MR. COLE: I intended before this time to inform you of my experience in grafting, last spring, in respect to two kinds of composition to put round the scion and stock. For several years I have used clay mixed with old horse dung found in pastures, which had lost its fetid quality. I have been in the habit, of late years, of putting it on in small quantities; almost as little as I formerly used of a composition composed of one part tallow, two parts beeswax, and three parts rosin. The clay, &c., I bound on with old woollen or other rags, and tied it on. I have thought that my grafts succeeded better with the clay than with the former mode. Last April, I grafted for Mr. Jacob Deane in a nursery of apple-trees. Most of them were grafted near the ground, and I made use of the clay, as above. In examining them a few days ago, I found that they succeeded very well — rather better than usual.

In the latter part of the time I grafted there, a young man from Norton, who had the misfortune to lose his right arm when a boy, grafted in the same nursery, and made use of a composition composed of beeswax, rosin, and linseed oil, put on, while warm, with a small painter's brush. His scions succeeded very well. Mr. Deane thinks there was not much difference in regard to their living and growing well, compared with mine. The scions were taken from the trees the days they were set. The time that I grafted them was between the 13th and 26th of April. The other man continued to graft there later, when the sap began to flow, and some trees began to leaf out. They did not live quite so well.

Yours, &c.,

J. S.

MANSFIELD, August 20, 1849.

EDITORIAL REMARKS. — A composition of rosin, beeswax, and tallow or oil, properly prepared and applied, is generally attended with as much success as any preparation of clay; and it is surely less

troublesome in its application, or may be used with greater facility and expedition. Some prefer oil to tallow, as it is a vegetable substance, and, as some suppose, less injurious to trees. But its being a vegetable substance is no evidence of its being harmless in its application to trees. The tallow in the ox was once a vegetable substance, and has been extracted by secretion. By the application of art, and by fire, certain powerful and concentrated substances may be obtained from vegetables that are as destructive to living plants, as those produced by animal secretion. We think that linseed oil applied to trees would be more destructive than tallow, as it is a liquid substance, and would more readily penetrate the bark and wood.

EXPERIMENTS IN RAISING WINTER WHEAT.

FRIEND HOLMES: In the Farmer of last week, I noticed thy remarks in favor of cultivating winter wheat in Maine. Having experimented a little with this crop, and being well satisfied with the result, I wish to make a brief statement of the same, hoping that some few individuals at least, who have not heretofore, may venture to commence the growing of winter wheat the present season, and thereby save the state a few dollars that would otherwise go into the great purse to carry west for flour.

The first sown by me was in the 8th month, 1846, — soil, partly clay, and the other part gravelly loam. A crop of oats and peas had just been taken off; the stubble was ploughed and top-dressed, about five eighths of an acre, with five double horse wagon loads of stable manure and litter made the winter previous. On one fourth of an acre adjoining, twenty-five bushels of leached ashes were spread. Two quarts less than a bushel was sown on the 18th of the 8th month, and well harrowed in. When winter and spring frost was over, the wheat plants were green and thrifty, except a few all over the piece, which I concluded were frozen to death for want of sufficient depth of covering. The season of 1847 was remarkable, as well as 1848, for heat and wet; and this crop suffered materially thereby, both at the time of growing, and whilst in shock; it even began to sprout, and all the bundles had to be opened, thereby occasioning a considerable waste. Sixteen and one-half bushels were obtained from the seven-eighths acre.

In the spring of 1847, I commenced with two acres for this crop, by sowing half a bushel of buckwheat to the acre. When in blossom in the 6th month, it was ploughed, and sowed again to buckwheat. It was ploughed again on the 20th of the 8th month, when so many witch grass roots were found still living in the soil, which we expected to kill by these several deep ploughings and the buckwheat, that we omitted sowing the wheat, being fearful that the grass would overpower it. In conversing with my friend William A. Drew, of Augusta, he informed me that he had several times grown a good crop on ground infested with this troublesome grass, but he would not recommend sowing wheat when it was very thick. This year, 1847, I did not sow any winter wheat, not having any other ground that I could prepare in season; and I only mention the foregoing particulars to show that I was not discouraged by the first experiment from sowing the next year.

In 1848, soon after the hay was taken from an old mowing field, I ploughed about five eighths of an acre of it — soil, stiff clay, loam, gravelly, and a few

furrows on one side of a watercourse, a black soil. Few lots of the size contain as many different varieties of soil. A heavy roller was run over the inverted sward, and manure was spread on very light, as follows: First, a strip with compost, made of soda ploughed up to make watercourses in cold, springy land, quick lime, about one half cask to the cord, and animal manure, about one load to fifteen of earth; next, swamp muck and leached ashes composted; then, horse manure and litter that had been made during the summer; and last, lime in very small quantity, perhaps at the rate of four or five casks to the acre — the whole well harrowed in. On the 20th of the 8th month, I sowed five eighths of a bushel of wheat on this ground, and covered it about two or three inches deep with a single horse plough. With the exception of a few rods of ground that was flat, the crop stood the unusually severe winter, and the spring frosts, well; though a part of it was not covered with snow all winter.

The same week I sowed a piece of high interval — the soil a free, yellow loam, on which peas had grown. Mistaking the strength of this soil, as two crops had been taken off since it was manured, I sowed at the rate of one and a half bushels, which proved too thick, much of it falling about the time it attained its full height, and consequently it filled but little.

This crop is not threshed yet, but we think, taken together, (the lodged patch excepted,) it will yield from twenty to twenty-five bushels to the acre of as white and plump grain as I have ever seen raised in New York.

The time of sowing is from the middle of the 8th, to the 20th of the 9th month. On greensward, or land lightly manured, we prefer to sow from the 15th to the 25th of the 8th month. On lands in fine tilth and highly manured, winter wheat has done first rate, when sown as late as the 18th or 20th of the 9th month. My friend, J. Morrill, of Waterville village, who has cultivated winter wheat more than any other person of my acquaintance in this county, informed me that he raised last year nearly thirty bushels to the acre from seed sown the 18th of the 9th month. In previous years, he has raised fine crops on land, after taking off a crop of corn. The corn was cut up and taken off the ground to dry.

If sown early on rich land, it will be necessary to feed off a part of the fall growth with light stock, else it may smother and mould, so as very much to injure the grain. Friend Morrill thinks any dry soil, sufficiently sloping to turn off the heavy rains, will produce winter wheat, if suitably prepared; and further, that greensward, with top-dressing, is preferable to old land.

In my haste, I forgot to mention the result from the different manures used last year. The two composts gave a much better crop than the horse manure or the lime. Of lime, there was too little put on to give a fair experiment. Muck, with lime or ashes, I am satisfied, will make a cheap and excellent manure for wheat.

The seed I have sown was imported direct from Poland, in 1846. It is a white variety, fully equal to the best I have seen from the Western States. Whether it will withstand the cold any better than seed brought from the Southern and Western States, I know not, having never tested the matter; but I have thought it possible that it might, it having been brought from a climate several degrees north of us. At any rate, it bears cold as well as winter rye, and with me it produces as many or more bushels to the acre.

I have been particular in detailing trifles, to encourage others, if such there are, who know less even than I do about this crop, to try it, if it be even on a small scale, as we have; and more than this,

that others better qualified will make the agriculturists acquainted with the best method of cultivating this valuable grain.

I am truly thy friend,
MOSES TABER.

VASSALBORO', 8th Mo. 1849.
— *Maine Farmer.*

REMARKS BY EDITOR N. E. FARMER. — It is stated in the Mail, (Me.), that Messrs. Pearsons, Waterville, raised twenty-nine bushels of Kloss Blue Stem winter wheat from one acre and ten rods of land, which they offer for seed. This is the same as we acknowledged the receipt of from Mr. M'Intire, in our last number. Brother Holmes, of the Maine Farmer, says that the weevil, or grain worm, has not appeared in that state this season. We have in New England all the elements and advantages necessary to the production of an abundance of wheat for our own use, and we trust that more attention will be given to the subject.

WOOL.

As we anticipated and expressed in a former number of the Farmer, wool is "looking up," as the mercantile men say: that is, the price has risen from twenty cents — the first bid which buyers made soon after the clip — to thirty cents. It will probably rise a little higher for the best grades, but it isn't best to hold on too long. A nimble ninpence, you know, is better than a slow shilling.

The western wool-growers seem to be increasing their flocks. As they gain experience in the mode of managing sheep, their flocks increase; but they find that wool cannot be raised quite so spontaneously on the prairies, as was first supposed. The belief that it could, however, induced the farmers there to commence the business; and those who have learned the trade, find that although it requires more care than they first reckoned upon, they can nevertheless make fair profits.

By the way, we see it announced in some of the journals of the day, that there have been some rare importations of merinoes into Illinois. The merinoes of the present day seem to have partaken of the same spirit of improvement that other farm stock have, and their size is accordingly much increased. It was formerly believed that a merino must necessarily be a small, delicate animal; but some of the late importations tell of animals of this class weighing two hundred and fifty and three hundred pounds. That is something substantial, at least; and if they will produce fleeces heavier in proportion to their increase in size, and as fine as we have heretofore been in the habit of growing, a great gain is obtained.

The Peoria Register mentions an importation of heavy French merinoes by Freeman Humphreys. These are probably similar to those imported by some of the Connecticut and Vermont farmers, of which we have heretofore made mention in our paper. The farmers of Maine, and indeed the farmers every where else, will find it an object to keep only the best sheep at any time, but more especially so when wool is low in price, and the call for it rather sluggish. — *Maine Farmer.*

HARVESTING BEANS.

Some farmers, on harvesting their beans, find it difficult to spread them in the barn, so that they will dry thoroughly; and when placed in thick layers, they are liable to mould, especially as some remain

green while others are ripe. The following plan, from the Maine Farmer, is very convenient, and obviates the difficulty that usually attends storing beans in the barn immediately after gathering. After beans are threshed and winnowed, they should be spread and exposed to the air till well dried, as they are liable to mould when laid in large heaps or put up in large casks or boxes.

Various methods have been adopted for securing the bean crop; in this there is greater diversity in the practice of farmers, so far as we have observed, than in the harvesting of any other of our farm crops. With us, beans are usually planted with corn, and they must be pulled and secured before the corn is harvested.

In harvesting beans, we have adopted the following method, which we consider as safe, and liable to as few objections as any other. It was recommended several years ago in some of the agricultural journals. After one becomes used to it, it will be found to require but little more time or labor than some other methods by which they are not likely to be secured with so little waste, nor in so good order.

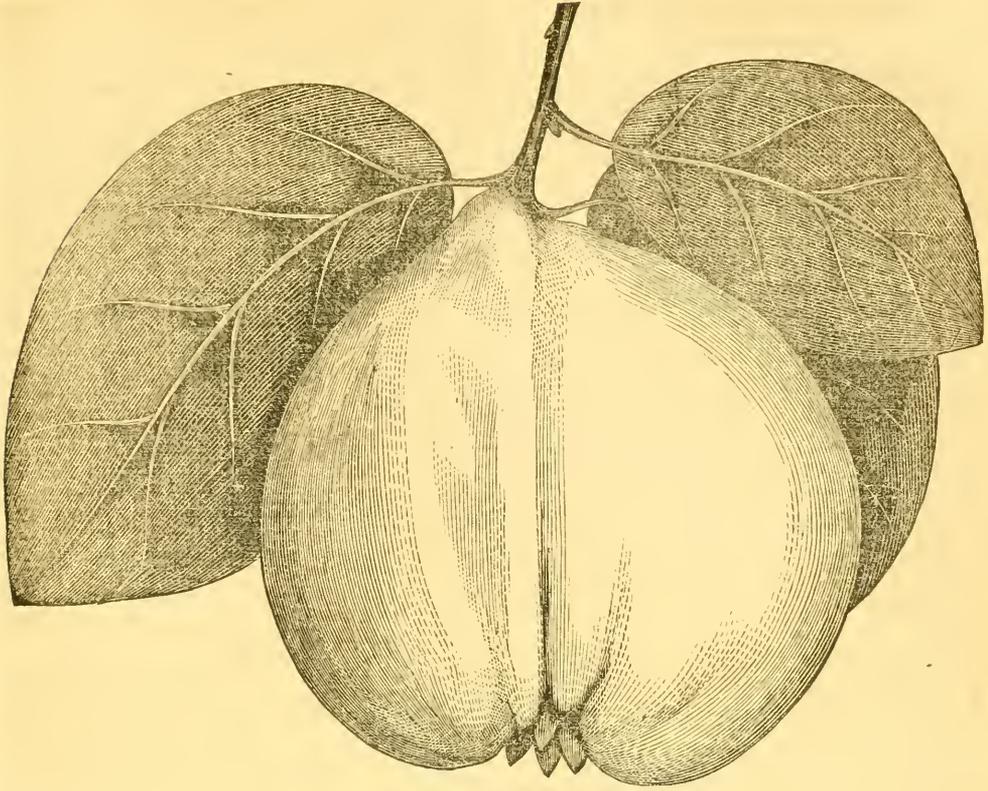
First procure the requisite number of stakes, about six or seven feet in length. These are to be used in pairs, and placed at convenient distances in the field. Then make two holes in the ground with a crowbar, about a foot apart, and sufficiently deep to hold the stakes firmly. In these holes insert a pair of the stakes, and on them, about six inches from the ground, wreath a withe, to keep the beans from the ground. In pulling the beans, the roots are to be kept together, and in arranging them between the stakes, first place a small handful on the withe, then another handful on the other side, lapping them a little, and turning the roots towards the centre of the stack, while the branches and leaves are on the outside. Proceed in this manner, keeping the stack nearly cylindrical in form, until it is built up high enough; then press the stakes together so as to keep the beans in place, and confine them by a withe at the top. Stacks of beans put up in this manner will shed rain, and the beans in them will keep in good order until they are fit to house.

When the beans are to be got in, take a handspike, and put it under the stack between the stakes, and lift the whole up together, and convey them away without separating them.

PEACH AND PLUM-TREES.

The early decline of the peach and plum-tree in our latitude, and the inefficiency of almost every means adopted for invigorating them again, seems to be a subject worthy of some consideration, and we would very gladly see it noticed by some of your scientific correspondents. No effectual remedy (if indeed there is such) for the disease appears to be known in this vicinity. Various devices have been resorted to, accompanied with but indifferent success. Some believe an application of hot ley from wood ashes to be efficacious. The ground is first removed from the trunk and roots of the tree, and the liquid is then poured in around it. This experiment has been tried here in several instances this spring, and the result, so far, seems favorable enough; whether this remedy may be considered at all available, I am yet unprepared to say. It were certainly very desirable that the lamentable difficulty in the cultivation of this kind of fruit, should be removed by some treatment more effectual than any we are now aware of. Perhaps some of your agricultural contributors have given attention to the subject. J. H.

BUCKS COUNTY, PA., 1849.
— *Philadelphia Dollar Newspaper.*



APPLE QUINCE.

Synonyms — *Apple-shaped, Orange, Cydonia Maliformis, Coignassier Maliforme of the French.*

The quince is among our most valuable fruits; and though not adapted to the desert, it is prepared in various ways, and is most excellent, being so high flavored that it gives character to various other fruits that are cooked with it. It has a very healthful effect in various medical preparations, and in food is both wholesome and palatable.

The quince is hardy; and as it blossoms late, from having its fruit on the new growth of the season, it is more likely to escape injury from spring frosts. An opinion has prevailed, generally, that the quince will flourish only on cool, moist soils; but practice shows that it will flourish well on gravelly hills and sandy plains, under skilful management. The fine specimen from which our drawing is taken, is from John Washburn, Plymouth, and it flourishes well in the light lands there.

The quince should be more extensively cultivated. They are excellent for family use, and they sell well in the market. It is but little cultivated north of this state, because it does not ripen well. There are two causes for this, both of which may be easily obviated. One cause of the quince not ripening in the north is, that the Pear quince, which is several weeks later than the Apple quince, is generally cultivated. Another cause of late ripening is planting

the trees in a cool, heavy soil, instead of a warm soil and location. With the Apple quince, a warm, sandy loam, and a favorable location, this highly valuable fruit may be extended nearly to all parts of New England.

The fruit of the Apple quince is large; of irregular shape, but resembling the apple in being rather larger at or towards the base; the skin is fair, smooth, of a beautiful golden-yellow color; the flesh is rather tender, compared with other quinces; and this quality appears conspicuous after cooking, on which account this variety is preferred by some nice observers in the culinary art. This variety is a good grower, and some horticulturists consider it fully equal to the Portugal quince for stocks for dwarf pears. It bears well. It may be propagated by seeds, layers, cuttings, or by budding and grafting on kindred stocks.

—◆—
A sound economy is a sound understanding brought into action. It is calculation realized. It is the doctrine of proportion reduced to practice. It is the foreseeing contingencies and providing against them. — *Hannah More.*

—◆—
Half an ounce of alum in powder, will purify twelve gallons of corrupted water.

CAUSE OF DECAY IN TIMBER.

SEASON FOR FELLING.

Considering the magnitude of the interests involved in the preservation of timber, it is surely a disgrace to us of the present day, that doubts should be as strong as ever concerning the true causes of its decay. In an absence of certainty as to these, for many years, attention has been turned away from the essential part of the inquiry, and directed merely to secondary points. The problem to be solved is, What causes the decay of timber?

In the first place, it is presumed that no one will dispute the fact that ancient timber lasted longer than modern. That being granted, we have only to ascertain what can have caused the difference. Our Anglo-Saxon forefathers knew nothing of bi-chloride of mercury, sulphate and pyrolignite of iron, chloride of zinc, nor creosote. There were no Kyans nor Burnetts, no Paynes nor Boucheries, in their days; yet they perfectly understood the art of rendering wood imperishable, as is sufficiently attested by what remains of their works. The great, though forgotten architects, who fixed the wooden roof of Westminster Hall, in the time of Richard II., and those who erected the old country churches and corner castles of England, must have known much better than the architects of the present day how to prepare their timber, or their wood work would not have remained as sound as when it was put together by their artisans.

As ancient practice is not sufficiently recorded, we can only look to the nature of the timber itself, in order to learn the causes which hasten its decay. Foremost among these is its exposure to any moist atmosphere exceeding a temperature of 33° Fahr.; and the decay will proportionably be hastened as the temperature of that atmosphere is increased. Timber, absolutely dry, would be unable to undergo decomposition at any appreciable rate. A piece of wood found at the back of one of the friezes, at Athens, by Lord Elgin, is as sound at present as it could have been in the days of Phidias, more than two thousand years ago. Even animal matters, rapidly as they putrefy, are preserved for centuries in the absence of moisture. Travellers assure us that in the arid plains that stretch northwards beyond the Himalayan range, the corpses of men and the carcases of animals dry up, instead of rotting. The Gaucho hangs his beef in the sun, and in the dry climate of the pampas it hardens as so much hide, like which it may be kept for use.

If, then, mere dryness is sufficient to arrest the decay of animal matter, how much more effectual must be its action upon vegetable substances, in which a natural tendency to rot is infinitely less inherent. Sawdust is but timber broken to pieces; damp sawdust rots rapidly; dry sawdust will all but last forever. Charcoal, one of the most unchangeable forms of vegetable matter, is only timber from which the last trace of water has been expelled by heat. Absence of moisture is therefore the great cause of preservation, as its presence is that of decay.

Complete dryness may be assumed to have been the cause of the durability of ancient timber. At least, in the present state of our information, we can refer it to nothing else; and dryness is amply sufficient to account for it. In the opinion of one of the most experienced and philosophical of modern writers, the late Sir Samuel Bentham, dryness was the great object to be obtained in preparing timber for naval purposes. Drying houses were recommended by him; and during all the period of his employment as civil architect of the British navy, this distinguished officer never ceased to point out the indispensable necessity of securing the dryness of timber before all

other things. To the artificial methods available for this purpose we need not here allude. What we have to deal with is the natural means of bringing it about. Those natural means are much more effectual than any others, and it is a question whether they can be superseded by any artificial method whatsoever. The means which trees possess of relieving themselves from moisture are their leaves, which serve as a very powerful pumping apparatus, incessantly drawing moisture from their interior, and giving it off to space. It is true that the same action which produces a discharge of fluid from the surface of leaves, has at certain seasons, the counter effect of again charging the apparatus with more fluid, to replace that which is thrown off; but this happens only at certain seasons. In spring, a tree is in full force; the roots then draw fluid from the soil, the trunk draws it from the roots, leaves draw it from the trunk — and waste it; and this goes on so long as the soil is filled with the rains of spring — so long as vitality is active. But as the summer advances, the earth becomes dry, refuses the same abundant supply as before, and all vegetation slackens. The leaves, however, still go on — pump, pump, pump; till at last, the roots becoming torpid, the leaves draw off all the free fluid that the trunk contains; and when the last supply that it can yield is exhausted, they perish. At that time, the trunk, by natural means, is dried to a great degree; the free water lying in its cavities is gone; and the whole fabric acquires a hardness it did not know before. Until the leaves are renewed in the succeeding spring, but small internal change occurs; the roots are torpid, and will scarcely act; the pumps are broken; and little more fluid is introduced into the wood. Hence it is obvious that the period when the timber of a tree is naturally free from moisture, and therefore least prone to decay, is between the fall of the leaf in autumn and the renewal of vegetation in the spring; and the nearer the fall of the leaf, the most free.

In this point of view, timber which is intended to be durable should be felled late in the autumn, or in midwinter. No artificial processes will relieve it of its moisture so economically and so well as the means which nature has provided. On the other hand, if it is felled when the tissue is full of fluid, it is much to be doubted whether any artificial methods of exhaustion are capable of seasoning it properly. — *American Agriculturist*.

EVERY MAN A FARMER.

The cultivation of the earth is congenial to the nature of mankind; and a very large proportion of men, during some share of their lives, either do, or have a desire to, become farmers. Besides those who, in civilized countries, are bred to the culture of the soil, and make it their sole pursuit through life, there are thousands of others who retire from the bustle and anxieties of trade, the vexations of a professional, or the turmoils of a public life, to rural quiet and the undisturbed cultivation of a few acres of land. The merchant, whose youth has been spent behind the counter, whose prime of life and middle age have passed between the ledger and the strong-box, between the hopes of gain and the fears of loss, having at length realized a plum, retires, from the crowded city and the anxieties of trade, to the pure air of the country and the peaceful cultivation of a farm. The lawyer, having acquired wealth and professional fame, abandons his causes for a more tempting cause, — the pursuit of agriculture, — or mingles with his professional labors the exercise of the spade and the plough. In like manner, the physician and the divine, the curers of physical and moral diseases, consult their own health and quiet, and find a balm

for body and mind, by snatching a few hours from the calls of professional duty, to apply them to the grateful pursuits of tilling the earth. Why should we mention the statesman and the warrior? They, too, are inclined to become farmers: the one leaving the field of ambition, the other his harvest of laurels, both seek a soil more congenial to the best feelings of man, and end the career of life, like Cincinnatus, at the plough. Even the mariner, the adventurous son of Neptune, whose home has been for many years, professionally and practically, on the deep, — who has sailed to all lands and visited every sea, bringing with him the rarities of every country and the products of every clime, — purchases a home on the land, transplants his exotics into his native soil, and prefers that his last rest should be in the rural churchyard with his kindred, to finding a bed in the bosom of the deep. The mechanic, too, is smit with the love of farming, and exchanges the dust of the shop for the furrows of the field, the confined air of crowded rooms for the free atmosphere of the heavens, and the noise of machinery for the music of birds.

Nor is this prevailing love of agriculture, which sooner or later in life discovers itself, to be wondered at, whether we consider it as implanted in our nature, or whether it be the result of reason and experience. If it be innate, it is merely kept down for a while by the engrossing pursuits of wealth, the calls of ambition, or the strife of glory. But, these being satiated or disappointed, the mind, set free, returns to its native desires, and applies its remaining energies to their peaceful gratification. But reason and experience may well be allowed their share in bringing so large a portion of mankind ultimately to the cultivation of the earth. Who, that values his native dignity and independence, would not prefer to be lord of a few acres of land, with nobody's humors to consult but his own, and nobody to please but his Maker, to the cringing, the fawning, and lying that are apt to enter so largely into political, professional, mercantile, and mechanical life? If any man on earth can say, "*I ask no favors,*" it is the farmer. Skillful and honest labor is all that the earth requires, and it yields a due return — no favors dearly bought with the surrender of independence, of honor, of truth, and of all noble and manly feelings; no truckling for office, no fawning for popularity, no lying for gain. No man can say of farming, "*I have served a faithless master! I have sacrificed honor, and conscience, and independence of mind; and what have I gained?*" Among farmers there are no deserted Wolseys, and no Belisarius lives a reproach to agricultural pursuits. The choristers of the field never sing to deceive, the flowers of the mead never bloom to hide a deformity, and nature never smiles to betray. — *Berkshire American.*

BEES AND THE MOTH.

MESSRS. EDITORS: Among the numerous humbugs of the day are some patent beehives, recommended to the public as infallible protection against the bee moth. And as the moth is very troublesome and vexatious to bee-keepers, they seize hold of any thing with avidity, which their credulity leads them to believe will afford relief; and thus they are gulled out of their money, and set off upon a false track — inevitably to meet with disappointment. Now, as patent beehive-venders have harped upon this one string, "Protection from the moth! Protection from the moth!" until I, for one, have become perfectly satiated with the sound, I am provoked to give my views on the subject. It is said of some of these hives, that the peculiar construction is such, that the miller will never enter them. But I think it not within the scope of human wisdom to construct a hive in such a manner as to admit the bee and ex-

clude the moth. The moth, in its perfect state, is a winged insect — a miller — and is smaller, lighter, and quicker on the wing or on foot, than the bee; and by the infallible laws of its nature, is led to seek the abode of the bees as a place congenial to its wants for the reproduction of its species, and will enter, in spite of all that man can do to prevent it, short of closing the hive.

Another and equally fallacious hope of protection, is from miller traps, (falsely) so called, formed of metallic substances, and placed in or about the hives for the millers to deposit their eggs in, that they may perish before coming to maturity, as they certainly would do if placed there; for the reason that the insect, while in its chrysalis state, subsists upon the material upon which it is placed, which must be vegetable or animal substance, for it cannot consume mineral substance. But who believes the miller subject to such random operations, in following out the laws of her nature, as to deposit her eggs in such a place, or upon such a material, as that they must of course perish, while, at the same time, she is in the immediate vicinity of that place and material which she chooses, above all others, for that purpose?

The fact is, no such contrivances are miller traps, but they are perfect and effectual traps for all who purchase the right to use them. They are not based upon any good philosophy, and have nothing to recommend them but the inventors and venders.

The only thing, in my opinion, upon which we can rely for protection from the moth, is to give the bees a hive of such dimensions that a naturally constituted or common-sized swarm of bees densely populate the same. They will then be able to protect themselves; not that they will, or can, prevent the moths entering the hive, and depositing their eggs there; but they will eject the grubs, and no serious injury will be experienced by the bees. And this, I am happy to say, is not a patentable subject: any man can make a beehive, of whatever dimensions he pleases, without paying any one for the privilege. These are my views upon the subject of protection from the moth.

D. LATHROP.

LA SALLE, ILL., June, 1849.
— *Prairie Farmer.*

NEW MODE OF BUILDING.

A small house may be built in the following manner, with a saving of expense, wherever lumber is as plenty and cheap as in this city, and where planing can be done by machinery: Take two inch plank, plane them on one side, and tongue and groove them. Provide good sills; and erect the building by setting the plank upright, and battening the joints with strips of half-inch stuff, the strips two inches wide. This forms the outside wall. Furr out on the inside, with half-inch stuff, and lath to that. The half-inch furring gives sufficient room for the plastering to clinch, yet leaves the space too narrow for mice. For small one-story houses, this is a very pretty mode of building, cheaper than by studs and clapboards, and in many respects better. Several such houses have been built in this city, and give good satisfaction. — *Selected.*

PLANTING AND BUILDING.

It was a very just remark of an eminent author, "The works of the person who builds begin immediately to decay; while the works of him who plants commence immediately to improve." Lord Bacon also remarked, "When nations arrive at civility and elegance, men come to build stately sooner than to garden finely, as if building were the greater perfection." — *Selected.*

Domestic Department.

PLAIN ADVISE TO COUNTRY GIRLS. — You know I said that I could quilt almost as fast as two of you. The reason is, I take care of my hands. One half of you are too proud to do this. You would not be caught putting a glove on to sweep, or hoe, or weed in the garden, because you think it would look as if you wanted to be fine ladies. If you see any one taking care of her hands or careful to wear a sun-bonnet to preserve her complexion, you say she is "proud and stuck up." But it is you who are proud — too proud to think you require any care to look nice. You have an idea you look well enough at any rate. So you just make yourself as rough and coarse as ever you can, by way of being independent. Your hands grow as stiff and hard as if you held a plough and swung a scythe; and when you take a needle, you can scarcely feel it in your fingers. This is wrong. There are many things which women ought to do, which require their hands to be soft and pliable, and they should be careful to keep them so, in order to make them useful. Every woman who lives in the country should knit herself a pair of woollen gloves, with long fingers closed at the tops — no mits, to let the fingers get hard. There should be a piece of ribbed work at the wrist, to make them stay on.

When you use your hoe, rake, or broom, put on your gloves — when you take hold of a skillet, pot, or kettle handle, take a cloth to keep your hands from being seared and hardened. When you wash clothes or dishes, do not have water so hot as to feel unpleasant. Many girls scald their hands until they can put them into water almost boiling. Such hands are unfit to use a needle or a pin. They are not so good to hold a baby or dress a wound. Take care of your hands, and do not forget your faces. I have seen so many country girls, who, at sixteen, had complexions like alabaster, and at twenty-six their faces would look like a runnet bag that hung six weeks in the chimney corner. One reason of this is, they do not wear a bonnet to protect them from the sun. Another reason is, the habit they have of baking their faces before a wood fire. I have seen women stand before a great roasting fire, and cook, until I thought their brains were as well stewed as the chickens; and they would get so used to it, they would make no attempt to shield their heads from the heat. Nay, they would sit down in the evening, and bake their faces by the hour; and this is one of the reasons why American women grow old, withered, and wrinkled, fifteen years before their time.

But another and the greatest reason is, your diet. People in this country live too well, and eat too much hot bread and meat. Country people usually eat richer food than those who live in the cities, and that is a reason why, with all their fresh air, their average age is little greater than that of city folks. Thousands of beautiful, blooming country girls make old, sallow-faced women of themselves before they are thirty, by drinking coffee, smoking tobacco, and eating hot bread. They shorten their lives by these practices about as much as city ladies with their fashionable follies. I do not know what you think about it, girls, but I think it is about as much a sin for women to get old, brown, withered faces, by eating too much, as it is for men to get red noses by drinking too much. Very few people think it a disgrace to have a bilious fever; but I would just as lief the doctor would tell me that I was drunk as that I was bilious. The one would come from drinking too much, the other from eating too much; and where is the difference? All this is a very serious matter, for it affects health and life; and the reason why I talk about your complexion in speaking

of it, is, that every body loves to look well, whether they will acknowledge it or not. Now, people cannot look well unless they are well; and no one can be well very long who does not try to take care of herself. The woman who roasts her head at the fire, disorders her blood, brings on headaches, injures her health, and makes her face look like a piece of leather; when she swallows hot coffee, hot bread, greasy victuals and strong pickles, she destroys her stomach, rots her teeth, shortens her life, and makes herself too ugly for any use, except scaring the crows off the corn. J. G. S.

— *Ohio Cultivator.*

LADY ARCHITECTS. — The daughters of General Simeco, says the "Builder," an English journal, on the ruins of the old abbey, Dunkswell, near Ilton, have erected a church for which they worked all the stone with their own hands. The same journal adds, "We have a worthy companion for these ladies, whose name is Miss Rickards, of Stow Langtoft, Bury, who has, with her own hands, glazed all the windows in her father's church with stained glass, painted and burnt by herself.

SODA COFFEE. — The flavor of coffee may be very much improved, by adding forty or fifty grains of carbonate of soda to each pound of roasted coffee. In addition to improving the flavor, the soda makes the coffee more wholesome, as it neutralizes the acid contained in the infusion.

Boys' Department.

THE REDBREAST. — Though the redbreast is generally admired for his song, he is still more admired for his attachment to and confidence in mankind. In all countries, he is a favorite, and has what may be called a pet name. The inhabitants of Bornholm call him *Tommi Liden*, the Norwegians, *Peter Ronsmed*, the Germans, *Thomas Gierdet*, and in England he is known as *Robin Redbreast*, or by the still more familiar appellation of *Bob*. Buffon describes, with his usual elegance, the winter manners of this bird. "In that season," says he, "they visit our dwellings and seek the warmest and most sheltered situations; and if any one happens still to continue in the woods, it becomes the companion of the fagot-maker, cherishes itself at his fire, pecks at his bread, and flutters the whole day round him, chirping its slender pip. But when the cold grows more severe, and thick snow covers the ground, it approaches our houses, and taps at the windows with its bill, as if to entreat an asylum, which is cheerfully granted; and it repays the favor by the most amiable familiarity, gathering the crumbs from the table, distinguishing affectionately the people of the house, and assuming a warble, not indeed so rich as that in the spring, but more delicate. This it retains through all the rigors of the season, to hail each day the kindness of its host, and the sweetness of its retreat." The bill of the robin is slender and delicate; its eyes are large, dark, and expressive, and its aspect mild; its head and all the upper parts of its body are brown, tinged with a greenish olive; the neck and breast are of a fine deep reddish orange; a spot of the color marks its forehead; its belly is whitish, and the legs and feet of a dusky black. It is near six inches in length, from the tip of the bill to the end of the tail; the former being about half an inch, and the latter two inches and a half.

This bird, in England, has the sweetest song of all the feathered tribe: the notes of other birds are,

indeed, louder, and their inflections more capricious; but the redbreast's voice is soft, tender, and well supported; and the more to be valued, as we enjoy it the greatest part of the winter.

During the spring, the robin haunts the wood, the grove, and the garden, and retires to the thickest and shadiest hedge-rows to breed in, where its nest is usually placed among the roots of trees, in some concealed spot near the ground. In winter, it endeavors to support itself, by chirping round the warm habitations of mankind, and by coming into those shelters where the rigor of the season is artificially expelled, and where insects are found in the greatest numbers, attracted by the same cause. The female lays from five to seven eggs, of a dull white color, diversified with reddish streaks. Insects and worms are the principal food of the redbreast. The latter it very dexterously rendered fit to be eaten, by taking hold of the extremity of one in its beak, and beating it against the ground till the inside comes away, and then repeating the operation with the other end, till the outer part is entirely cleansed. — *Selected.*

Health.

THE TOMATO is one of the most wholesome fruits that is cultivated. The plant is vigorous, hardy, and productive, and one of the easiest to cultivate. It is adapted to all parts of the country, by starting it in the north, in a hotbed, or some other mode to forward the plants, which costs but a trifle.

This fruit may be cooked in twenty or thirty different ways, suiting the taste of almost every person; and to many it is very palatable indeed, though most persons need to be accustomed to its use a while before they relish it.

The tomato is excellent for bilious affections, and for dyspepsia. When we were publishing the Yankee Farmer, there was an article in that paper on the healthful properties of the tomato, and the same paper contained a seed catalogue, in which was the tomato. A person who had been severely afflicted with the dyspepsia for ten years, so that he could eat but very few common dishes of food, procured some tomato seed, of which plant he had previously no knowledge; and he raised some fruit and used it as food, and he had jellies and other preparations made in the fall, that he might use when the season for fresh tomatoes was over. By this simple remedy, he was completely cured, in a few months, of an obstinate disease, that had bid defiance to the best medical skill for ten long years, for so they must have seemed to the unfortunate invalid. Here we also have the important bearing which a single fact gleaned from a useful paper, has upon a man's health, life, and interest generally.

BURYING ALIVE. — Mr. Mansfield, of the Cincinnati Atlas, writing from Xenia, under date of July 26, says, "I cannot doubt that there have been many cases of too hasty burials, in cases of cholera. I saw a young man to-day, who was reported all one day to be dead, and was actually in a state of collapse. He said that he heard the persons at his bedside say, 'He is dead;' and at the same time, he was perfectly conscious, and in full possession of his senses! He said that he was in dread that they would bury him alive!

THE HAIR. — Dr. Holland has started a new theory with regard to the functions of the hair. He says it is a safety valve to the nervous system, forming a connection between the nervous organs and the great principle pervading the universe. He says the profuseness of hair is always proportionate to the prevailing vital energies. — *Selected.*

Mechanics' Department, Arts, &c.

MINERAL CEMENTS. — *Roman Cement.* — It is a remarkable fact, in the history of hydraulic mortars, which originates, as we have seen, with the puzzolana and trass employed by the Romans, that the more the knowledge of their uses has been spread, the more substances have been discovered, which either act as hydraulic mortars themselves, or can be mixed as cements in the preparation of artificial mortar; so that what appeared originally a privilege accorded to a few favored spots only, can now be obtained almost every where. A strong inducement to study the nature and modes of occurrence of hydraulic lime, was created by the patent granted to Parker and Wyatt, in London, in the year 1796, for what they termed "*Roman cement.*" The materials employed in the manufacture of this cement, are the nodules, of an ovoidal or globular form, which are found in the London clay, and known by the name of *septaria*. They are not confined to the banks of the Thames, but are also found on the Isles of Sheppey and Wight, as well as on the coasts of Kent, Yorkshire, and Somersetshire. The composition of these nodules has already been given. They are calcined in perpetual limekilns, with coal, in which a very moderate and well-regulated heat is carefully preserved. After calcination, the stones are ground under heavy edge-stones to a very fine powder, which is sifted and then packed in casks for sale.

In the year X. of the French republic, Lesage pointed out the existence of similar cement stones on the coast of France, near Boulogne, and Drapier proved their identity with the English, by chemical analysis.

Roman cement is one of the most powerful hydraulic mortars, and is exceedingly valuable, not only on account of the rapidity with which it hardens, — and this is effected in a very few minutes, — but because, when hardened in considerable masses, it is not liable to crack.

Since that time, similar calcareous marls have been found in numerous places, wherever pains have been taken to look for them, and have been used for similar purposes. To give an instance of this, Kittle in Aschaffenburg, examined a series of limestones from the Spessart, and found, in four different places in the neighborhood, limestone, which yielded a very tolerable mortar, and two varieties which were excellent. Hydraulic lime has occasionally been met with in the same quarry as fat lime, and, its nature not having been investigated, has been neglected as useless in consequence of the slowness with which it is slaked.

All artificial or natural hydraulic limestones are soluble (before as well as after calcination) in muriatic acid, with the separation of silica, except when sand or some similar substance has been added to them.

Practical Remarks. — The hydraulic limestones, when they do not contain a sufficient quantity of lime to be capable of slaking with water, must be very finely pulverized; it is only by this high state of division that a proper action can ensue. A thorough penetration of the siliceous portion by the lime is never entirely effected, but a certain proportion remains enclosed and removed from the sphere of action.

One point, which is very often neglected in pre-

paring artificial hydraulic mortar, is the attention to the proper proportion between the slaked lime and cement. Both the ingredients must be mixed by measure or weight, and not merely estimated by the eye.

The best plan is to moisten the necessary quantity of cement first, and then mix the freshly-slaked lime with it. The more uniformly and intimately both are mixed, the better is the result.

The hydraulic mortar employed in building the Eddystone lighthouse, was mixed by Smeaton from equal proportions of lime, slaked to powder, and puzzolana. Trass and puzzolana are generally mixed with half their weight of lime, as was the practice amongst the Romans. It is desirable to ascertain the best proportions by experiment in all cases where no certain knowledge of the nature of the two substances can be obtained.

Good hydraulic mortar, whether made from natural limestone or composed of lime and cement, should not show any tendency to crack when hardened under water, even when no sand is mixed with it. It then forms a very dense and solid mass, which, in a short time, neither suffers water to permeate it, nor is attacked by the water, but acquires a considerable degree of hardness. For this reason, it is well to use nothing but hydraulic mortar for those parts of walls which are constantly under water. If the mortar is not only required to harden, but also to bind well, a very important point must never be neglected; and that is, to moisten the surfaces of the stones to which the mortar is to be applied. When this is not done, the surface of the stone (by its power of absorbing moisture) dries the mortar, and prevents proper adhesion from taking place. The joint then remains open to a greater or less extent.

It does not by any means follow, that because hydraulic mortar is the only durable material for building under water, it cannot consequently be used for dry walls. It is, on the contrary, of the greatest service wherever protection is required against the infiltration of moisture and damp; and dwellings or buildings can often be rendered very much less damp by a judicious application of a hydraulic coating; a layer of this kind, when once hardened, is not calculated, like ordinary mortar, to attract moisture and allow it to pass through. The hydraulic mortar must, of course, when used for covering dry walls or otherwise, be kept moist and watered, until it has acquired its proper degree of hardness. If this is not attended to, a soft, friable, useless coating is the certain result. If moisture enters from below, for instance, between the wall and the coating of mortar, it will continue confined there in consequence of the impenetrability of the latter, which, on the occurrence of a frost, will most certainly peel off and be destroyed. Care must also be taken that the mortar does not dry up of itself immediately in the air, in which case it contracts and cracks. It is, therefore, necessary to add sand, or some other substance which obviates the shrinking. Hydraulic mortar will bear a very considerable quantity of sand without injury to its hardness, even as much as one and a half times its own weight and more. This addition, therefore, is important in an economical point of view. The grain of the sand employed, however, requires attention, as was the case with ordinary mortar; sharp, angular sand is decidedly preferable to blunt, rounded sand, and it is better to use a mixture of coarse with fine sand, than that the sand should be all of the same sized grain. The sand should likewise be as free as possible from earthy particles and dust. In mortar composed of lime and cement, the rule is, to proportion the sand to the quantity of cement used. Slaked lime will not bear more than a certain quantity of these substances, which quantity must not be exceeded, the cement

itself being for the greater part inactive and playing the part of sand.

Hydraulic mortar that sets with sufficient rapidity, and to which a proper proportion of sand has been added, may be employed for casting tolerably massive objects, which are not subject to crack when dry. This enables hydraulic mortar to be employed for architectural ornaments, which then combine great sharpness with durability, are very light as compared with similar figures of sandstone, and have the great advantage of being easily multiplied.

A similar application is that for casting water-pipes, on the spot where they are required, as proposed by Gasparin. The mould employed is a linen hose, like those attached to the fire engines, a few meters in length, which is filled with water and closed at both ends. A thick kind of bolster is thus produced, over which sand is sifted, and it is then laid upon a deposit of hydraulic lime, and covered by pouring over it the same substance. When the whole has hardened, the hose is drawn forward, about the length of one foot, being left inserted in the tube, and a fresh length is cast. Watercourses, thus constructed, must, however, have a certain amount of fall, or the sand cannot be washed out, and will impede the delivery of the water.

When hydraulic lime is mixed with small stones, or with shingles from the bed of a river, or the sea, walls can be directly constructed of it, and a mass is obtained which resembles the erections with ordinary mortar, and is called *béton* by the French.

At Toulon, a mixture was used for the construction of the harbor, consisting of three parts lime, four puzzolana, one smithy ashes, two sand, and four parts of rolled stones or shingles.

The great strength of walls, constructed with hydraulic mortar, is most clearly shown by the experiments undertaken with a view to break beams constructed of brickwork. A twenty-five feet long and two and a half feet wide beam, constructed with nineteen layers of bricks, bound together by Roman cement, in which, here and there, parallel strips of iron were enclosed, was capable of bearing, when supported at both ends, a weight of twenty-two tons suspended from the middle, before it showed any signs of fracture. — *Albany Cultivator*.

MANURES.

Manures assist plants, by destroying predatory vermin and weeds. This, however, is not a property of animal and vegetable manures; they foster both those enemies of our crops. Salt and lime are very efficient destroyers of slugs, snails, grubs, &c. It is astonishing how ignorantly neglectful are the cultivators of the soil, when their crops are devastated by the slug, not to dress them so as to render the surface of the soil quite white, during a promise of a few days' dry weather, with caustic lime. It is instant destruction to every slug it falls upon, and those whom it misses are destroyed by their coming in contact with it, when moving in search of food. It is a common practice to burn couch-grass, docks, gorse, and other vegetables which are very retentive of life, or slow in decay: a more uneconomical, unscientific method of reducing them to a state more beneficial to the land of which they were the refuse, cannot be devised. In breaking up heaths, such *exuvia* are very abundant; but, in all cases, if the weeds, leaves, &c., were conveyed to a hole or pit, and with every single horse-load, and with barrow-loads in proportion, a bushel of salt and half a bushel of lime were incorporated, it would, in a few months, form a mass of decayed compost of the most fertilizing quality; the lime retaining many of the gases evolved during the putrefaction of the vegetable matter, and

the salt, and it combining to destroy noxious animals, which might form a nidus in the mass. By this plan, nearly all the carbonaceous matters of the refuse vegetables are retained; by burning, nearly all of them are dissipated. The forming of a compost such as that recommended, is justified and approved by the experience of many.

Stable manure, and all decomposing animal and vegetable substances, have a tendency to promote the decay of stubborn organic remains in the soil, on the principle that putrescent substances hasten the process of putrefaction in other organic bodies with which they come in contact. Salt, in a small proportion, has been demonstrated, by Sir J. Pringle, to be gifted with a similar septic property; and that lime rapidly breaks down the texture of organized matters is well known.

There is no doubt that rich soils, or those abounding in animal and vegetable remains, are less liable to change in temperature with that of the incumbent atmosphere, than those of a poorer constitution. This partly arises from the influence of the color of soils on vegetation. Some manures, as salt, protect plants from suffering by sudden reductions of temperature, by entering into their system, stimulating, and rendering them more vigorous, impregnating their sap, and consequently rendering it less liable to be congealed. — *Gardener's Magazine.*

ACKNOWLEDGMENTS.

Our friends have been very liberal in their favors, and we have endeavored to do justice to them; but sometimes it is difficult to judge accurately of a fruit on examining a few specimens, and those are liable to be injured by transportation and exposure, and by delay from the time of picking the fruit to the time of trial. These are often disadvantages to which fruits are subjected when sent some distance, as many kinds are in their prime only when taken from the tree.

From Dr. Rufus Kittredge, Portsmouth, N. H., fine Bartlett pears. This popular variety has generally failed this season in most all parts of New England.

From William Heustis, Leominster, Crawford's Early Melocoton peaches, extremely large and fine.

From George Loring, Concord, Mass., large, handsome pears, without a name; it is doubtless a native. The quality is only middling, but as it is a hardy, productive variety, and ripens early, (the last week in August,) it may be valuable for market.

Of Charles H. Tarbell, of Lincoln, Tarbell, Lincoln, and Smith's Favorite peaches. These fruits we examined in the peach orchards in Lincoln, and selected them as among the finest in the country for orchard culture; they ripen rather late, and in succession. We find them very hardy, and fine growers in the nursery. As we found them without names, we named them, when we described them in the American Fruit Book. Fine crops of these fruits are produced in Lincoln, and sell at high prices.

Of Willard Badger, North Chelsea, native grapes, pleasant for the kind.

Of Capt. George Pierce, West Cambridge, large and beautiful Porter apples, the lot which took the premium at the late show of the Massachusetts Hor-

tical Society, for the best dish of apples. Capt. Pierce not only excels in bringing the first productions to market, but he excels in the superiority of his articles. He has brought so fine peaches and apples to this market, that they at once attract crowds, that evidently enjoy great pleasure in looking at the noble display. He sold a bushel of peaches the other day at six dollars. By his skill as a cultivator, and his neatness and good taste in preparing and presenting his fruits and vegetables, he does great honor to his profession.

From Isaac Holden, Billerica, several varieties of excellent peaches. One without name; medial size, white, with a red check; white, very tender, melting, sweet flesh, of the highest character. From its tenderness, it may be better adapted to the garden than the orchard. Two other nameless kinds; one excellent, the other tolerably good; both of good size and beautiful. Another variety, very large, beautiful, yellow ground, mostly covered with red, of the finest properties, for orchard culture, he calls the *Early Chelmsford*; but the peach which we have known for several years as the *Early Chelmsford*, which we have described in the American Fruit Book, and have in our nursery, and have distributed scions of, is a very different peach in every respect. It is white with a red check, white flesh, and the leaves are glandless; while this of Mr. Holden's has globose glands; and ours ripens several weeks earlier. We would say to those to whom we have furnished scions and promised trees, that we cut our scions from the tree on which grew the fine fruit we have described. As the description of the white peach has been widely disseminated, and is in reality early, and the other is not, to prevent confusion, we hope that friend Holden will get a more significant name for his excellent peach.

Of Andrew Lackey, Jr., Marblehead, several varieties of plums, among which is the famous Jefferson, which has excited considerable attention for a few years past, as some horticulturists have recommended it as the best of all plums, all things considered. The Jefferson is a fine variety, being large, handsome, and of first-rate quality; but we think that some have overrated it, as there are other varieties that are equally valuable. We regard it as one of the very best.

Of Capt. Amos Perry, South Natick, native grapes, which we called *Perry's Native*, several years since. This is one of the very best natives, and we seldom see its equal, among the hundreds of kinds that have been cultivated. It has much less of the acid or pungent taste, and hard pulp, for which native grapes are distinguished, and which renders them objectionable. This grape is of a fine, high flavor.

Of B. F. Cutter, Pelham, N. H., the Southwick peach. This is one of the finest varieties. It is of a large size, and handsome appearance. It was brought into favorable notice at the horticultural show at Lowell, a few years ago. From its high character, we added it to our nursery collection; and on trying the fruit we find that it sustains its high reputation. Also tomato catsup. Mr. C. manufac-

tures this article very extensively; we have occasionally tried and find it of excellent quality. It is singular in retaining very prominently the peculiar tomato flavor, while much of this preparation is disguised by too large quantities of spices and other condiments.

From Amos Clarke, Sherburne, scions of the Clarke peach, an excellent variety, of his raising, to which we gave this name when we introduced it in the American Fruit Book.

Of J. F. Hyde, Newton Centre, native grapes, rather acid, but free from the pungent or foxy taste of the wild fruit. A beautiful crab-apple, much larger than the Red or even the Yellow Siberian crab. We have no account of its habits. Seedless barberries. This is a very singular production. The berries are perfectly free from seed, and this variety is propagated by offsets. The quality is the same as the common barberry, and about as large as the common kind would be divested of its seed. As the large seeds of the barberry are a great objection, this may prove a valuable acquisition.

From Norman Porter, Berlin, Ct., half a barrel of fine apples, which are probably new in this section. Fall Spice is of a large size; roundish, but considerably flattened at the base; some specimens are slightly flattened at the top; ribbed and irregular; stem short, generally even with the base, in a narrow, deep cavity; calyx rather small, closed, in a shallow, narrow, ribbed basin; skin smooth and glossy, pale yellow, with a bright-red blush in the sun; flesh white, tender, juicy, of a fine, high, spicy, subacid flavor. In quality it ranks among our best apples. Fine, both for the dessert and for cooking. Also Baker's Sweet: quite large; roundish, moderately flattened at the base, and tapering slightly to the top; stem long and slender, in a narrow, deep cavity; calyx closed, in a narrow, deep basin; skin rough, of a rich golden yellow, marbled and dotted with specks and spots of russet; flesh yellowish, rather firm, sweet, excellent for baking. If the habits of these varieties are good as to growth and production, we should think that they would be worthy of general culture.

From Elisha Bance, Westford, native grapes, which we believe are called *Monmouth* in Lowell and that vicinity; very large; but they smack too strong of the acidity and foxy taste too common in our native grapes.

In the notice of plums from J. C. Hewins, Dorchester, in our last, we omitted to notice that he had one peck from a scion set three years since, showing the great production which is common to Cruger's Scarlet, as we considered that variety.

NOTICES OF PUBLICATIONS.

THE AGRICULTURIST'S GUIDE and Almanac for 1849. — We noticed this work in the summer. It is now for sale in this city by J. P. Jewett, 23 Cornhill. For a trifle the farmer gets a good almanac, and many useful hints, and in his profession; and a single item may be worth to him ten times the cost.

DESCRIPTIVE CATALOGUE of garden seeds, cultivated and sold by Comstock, Ferry, & Co., Wethersfield, Ct. This is a work of 48 pages, containing many valuable directions for the cultivation of various plants, remarks on manures, implements, &c.

LIST OF PREMIUMS and rules for the second Cattle Show and Horticultural Exhibition of Maryland State Agricultural Society, to be held in Baltimore on the 10th, 11th, and 12th of October.

THE (OLD) FARMER'S ALMANAC, by Robert B. Thomas, published by Jenks, Palmer & Co. — We most cheerfully welcome this familiar friend. We remember well when farmers who paid particular attention to *improvement* used to consult this work in order to ascertain what the weather would be when they were haying, harvesting, &c. It is still among the most popular annuals of this class.

THIRD ANNUAL REPORT of the Mahoning Ohio Agricultural Society, containing also an Address on the Science of Agriculture, before the Society, in October last, by John M. Edwards, Esq.

For the New England Farmer.

STANZAS.

How pleasant 'tis to wander
When summer skies are bright,
And clouds of gorgeous beauty
Are fading into night!
Or when the moonbeams linger
On valleys gemmed with dew,
And stars are faintly shining
In yonder arch of blue!

How sweet to catch the music,
Borne by the gentle breeze,
Of streamlets softly wending
Among the shadowy trees!
All Nature smiles in beauty;
A lovely face she wears;
And for each blossom lowly
The great Creator cares.

He gives the dew and sunlight,
He gives the gentle rain,
And clothes with silken verdure
The flower-bespangled plain.
O, should we not adore Him
Who reigns in might above,
And watches o'er us ever
With tender care and love!

LEBANON, CT., August, 1849.

E. C. L.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.

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DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, OCTOBER 13, 1849.

NO. 22.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

NORFOLK CATTLE SHOW.

On the 26th of September, the Norfolk Agricultural Society held their first festival, at Dedham. The day was fine, and a large number of persons attended; and on the whole the show was excellent—a fine beginning. The ploughing match came off in good style. The show of cattle was not large, nor generally excellent, but there were some fine specimens. The swine were generally good, and several lots were as fine as we ever saw. The Suffolk pigs attracted much attention. There were several good colts and young horses. The exhibition of poultry was large, varied, and generally excellent. Edward W. Bray, Canton, had in one large coop, with numerous apartments, nineteen varieties of hens, from the little fancy Bantam to the majestic India fowls.

There was a fine show of implements. The display of vegetables and specimens of farm crops was extensive, embracing a great variety; and the quality, as to appearance, was remarkably fine. It was the largest and best show of vegetables that we ever saw.

The horticultural department, consisting of fruits and flowers, was very fine, considering the season has been so unfavorable for some species of fruit.

The address was delivered by Hon. M. P. Wilder, president of the society. It was deeply interesting as a sensible discourse, and was interspersed with sage remarks and specimens of wit. There was a great rush to the church to hear it, but hundreds could not gain admission. The orator excited profound attention; and that discourse must be excellent that holds an audience so long chained to the speaker, while so many exciting scenes were around them. The delivery of the address required one hour and fifteen minutes. On such occasions, when there is so much to do, and so much to be seen, it might be well to limit the orator to half an hour, lest we have too much of a good thing. An original hymn by Rev. John Pierpont, and an ode by George Lunt, Esq., constituted a part of the interesting exercises in the church.

At the dinner table there was an immense number of persons. Yet hundreds, and many from

other sections who took a deep interest in agriculture, were sadly disappointed in learning that the sale of tickets was limited to members. This was the more grievous, as they could not hear the distinguished gentlemen who had honored this occasion with their presence. There were present Governor Briggs, and Ex-Governors Lincoln and Everett; Hill, of New Hampshire; Hons. D. Webster, H. Mann, and R. C. Winthrop, the venerable Mr. Quincy, Ex-President of Harvard College, now a practical farmer, and a host of others distinguished for talents and station. The dinner was continued long, and many speeches were made, as might well be expected from so many gentlemen noted for their ability. We doubt whether a dinner of even the Royal Agricultural Society of England ever presented such an array of talent—so many orators always ready for any emergency.

As to the arrangements for dinner, our remarks are not in the way of complaint, but we make them with a view to improvement, and with a confidence that those who were disappointed will, if they attend in future, be provided for. This society is young, and generally they have done remarkably well, and much credit is due the officers for their good management. May the future prosperity of this infant association contradict the old adage, that *a bright child never lives long*.

ESSEX CATTLE SHOW.

The Essex Agricultural Society held their annual festival at Salem, September 27. The day was fine, and a late rain had laid the dust. There was an immense number in attendance, crowding that city full; and in some places it was difficult to get a fair view of the show, so great was the crowd. The ploughing was generally done well; some parts were excellent; but on two or three lands the grass appeared rather prominent between the furrow slices.

There was a good show of stock: some specimens of cattle were fine, and among them was our native breed. There was an excellent show of poultry, of almost every kind, but mostly hens. Some lots were very fine. This branch is receiving more attention by our agricultural societies, and should be encour-

aged, for the produce of the hen, in eggs and chickens, forms an important, and no inconsiderable part of our food; and as to profit, as much depends on the breeds, and good management of fowls, as of any other animals.

The show of fruits and flowers was fine, and that of the former larger than we expected to see this season. There were some fine specimens of vegetables, but in this department the exhibition was rather limited.

The address by Hon. A. T. Newhall was plain, practical, and instructive, giving the experience and observation of the speaker. It was rather brief. Among the distinguished visitors of this fair were Governor Briggs and Ex-Governor Hill. As a general thing, this show was excellent. Mr. Proctor, the president, and the other officers, constitute an efficient corps in the cause of improvement.

MIDDLESEX CATTLE SHOW.

This festival was held at Concord, on Wednesday, last week. A large number attended. The ploughing match was on land that was rather heavy from recent rains, and considerable skill was necessary to good work. The competition was very brisk, yet most of the ploughmen and teamsters promptly performed their labor in a quiet manner. The ploughing was excellent, and the most of it was remarkably good, particularly in turning the last furrow. There were nine double ox teams, nine single ox teams, and five horse teams, one pair each. A son of A. G. Sheldon, Wilmington, ploughed with a double team, without a driver. He made excellent work, and completed his land in good season.

The show of cattle was not extensive, but there were some very fine animals. A variety of breeds were in the pens. Among the blood stock, the Devons and Ayrshires were the most conspicuous. There were fine natives, and some good crosses or mixtures of the native and foreign breeds. Concord shows have long been noted for fine specimens of swine, mostly a mixture of different breeds. One lot was called *Our Old Native Race*, as pure as could be found; but they looked too well to be even distant relations of the *Land Sharks*, as the old gaunt races were called. There was but very little poultry. The show of fruit, though not extensive, was very fine indeed. The vegetable products were not numerous, but large, and of superior appearance.

The address was by Lilly Eaton, Esq., who has occasionally appeared at celebrations as a poet; therefore we expected that the address would be poetical or flowery; but in fact it was both. He ran into verse frequently, and his prose was often poetical and flowery. The address was generally pleasing and beautiful, and no small part was marked with sage reflections and sound philosophy. Like many other addresses on such occasions, it was too long, requiring an hour in its delivery. This is a day of impatience and railroad speed, and the orator's motto should be, "Much in a small space."

We could not attend the dinner; but we under-

stand that this society has followed the excellent example of some others in putting the tickets at fifty cents. This has been the uniform price at the shows, this season, excepting at Worcester.

This exhibition, on the whole, indicates good progress in improvements, in agriculture, horticulture, manufactures, mechanism, and in useful knowledge generally.

TRANSPLANTING TREES.

The land for setting trees should be deeply and thoroughly cultivated, and if not in good tilth, it should be manured with well-decomposed compost, which should be thoroughly mixed with the soil. Trench ploughing and subsoil ploughing are excellent preparations.

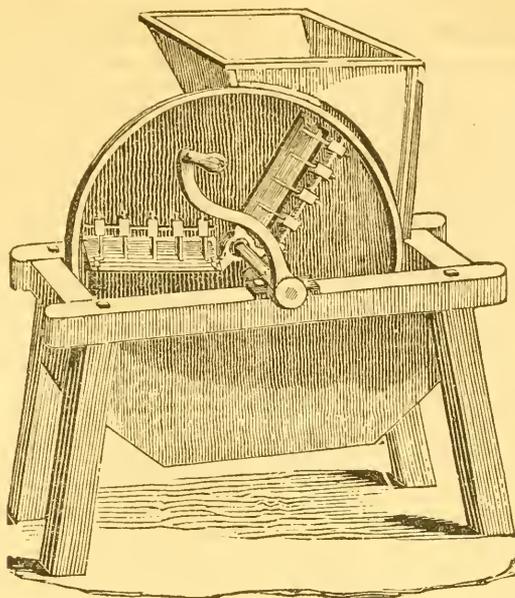
A hole for the tree should be dug five or six feet wide, and eighteen or twenty inches deep. It should be filled, nearly to the top, with rich loam and decomposed sods, which should be trodden down a little, lest the tree settle after it is set. Set the tree so that the roots will be within a few inches of the surface when the ground is levelled, or about the same as it grew naturally, or in the nursery. Deep planting is injurious. Fill in among and on the roots fine soil, and tread it down gently.

After setting the trees, in the fall, in the usual manner, to protect the roots in winter, throw up around the tree a broad mound of earth, six or eight inches deep; then lay around and very near the tree three or four stones, pressed into the earth, to keep them firm, and then place sods or turfs between the tree and stones, and press them down with the foot. The heap of earth will throw off the water, and keep the tree in good condition, in its new location; and it will also protect it from mice, as they will not work in elevated, exposed situations. The stones and sods, together with the mound of earth, will save the tree from injury from winds, without stakes. In spring, the convex surface should be changed into a concave or basin, to catch and hold the water.

October is a favorable season for transplanting, and the sooner it is done the better. There is no better season, if the work is done well, as we have recommended. When trees are well set in fall, they grow the next season, as though they had not been moved; but when set in spring, they often fail to grow, and sometimes they die from severe drought. We always have good luck in autumnal transplanting, even in exposed situations, and when open or changeable winters succeed. In packing trees that are to remain long in the package, the leaves should fall first, or they should be cut off, to prevent fermentation; hence some nurserymen recommend delay, as they do not like the trouble of removing the leaves.

CHEESE.

Several reasons being suggested for cheese being sometimes poisonous, another has occurred to the writer, from observing a number of thirsty cows drinking the "green mantle of the standing pool," in a pasture, for want of pure water. — *Selected.*



VEGETABLE CUTTER.

This machine is used for cutting roots and other vegetables into small pieces, so that animals can eat them conveniently and safely, doing away with all danger of choking, to which animals are liable in eating large and hard vegetables.

The cutting wheel is made of cast iron, with cutting knives like plane irons, that cut off slices of the vegetables that are put into the hopper; and by cross knives these slices are cut into fine pieces, adapted to convenience in eating, or to mixing with straw or coarse fodder.

This implement cuts with great rapidity, and is a labor-saving apparatus to those farmers who feed roots to their stock. Roots and other vegetables for stock, not only make a great saving in other food, but they keep animals in better condition, and render them more productive than dry fodder; and every facility that promotes convenience, or saves labor, in feeding, tends to encourage this improvement in agriculture.

THE CULTURE OF THE GRAPE.

We are glad to notice a disposition on the part of citizens, in various sections of the Union, to pay more attention to the culture of the grape. Vineyards are springing up every where. In the neighboring county of Berks, we are told that already sixty thousand gallons of wine are made per annum. At the Syracuse Fair, specimens of American champagne, manufactured in the immediate neighborhood, also a specimen of port wine, so called, manufactured from a native grape found in the vicinity of Columbus, Georgia, were exhibited. No spirits of any kind or coloring matter was mixed with it, and the gentleman who submitted the specimen made two hundred gallons last year. But for the early frost, which killed much of the fruit, he would have made a

thousand gallons. While on this subject, we may state that a few evenings since, we tasted, at the house of a gentleman in this city, some very delicious American champagne, manufactured from a vineyard near Cincinnati. A French gentleman present, who, we have reason to know, is an admirable judge of wines, pronounced it to be very superior — possessing the qualities of strength, richness of flavor, color, and brightness. When prepared and bottled according to the most successful plans adopted in France, and a full age given to it, this wine will, in the opinion of the French gentleman, become an article of domestic consumption and foreign export of great value. — *North American Farmer.*

REMARKS BY EDITOR N. E. FARMER. — Many of the native grapes that grow with great luxuriance, and produce in abundance, will make excellent wine. The musk taste, that is so offensive in this fruit for eating, will give a fine flavor to the wine, at least in the opinion of some nice connoisseurs. The vine culture is extending all over our country, and thousands of experiments are making with a view to collect or originate new and valuable grapes, and learn the best mode of culture. In a few years, we shall have this delicious fruit in abundance, and in great excellence. But the effect of an abundance of wine, genuine American wine, with no alcohol excepting that evolved from the juice of the fruit, on the moral state of the community, is a grave question, that involves in its bearing the welfare of millions.

DIFFUSION OF SEEDS. — In boring for water at a spot near Kingston-on-Thames, some earth was brought up from a depth of three hundred and sixty feet. This was carefully covered with a hand-glass, to prevent the possibility of any seeds being deposited on it; yet in a short time plants vegetated from it.

For the New England Farmer.

CATTLE SHOW AND FAIR

OF THE NEW YORK STATE AGRICULTURAL SOCIETY.

The annual exhibition of this society, held at Syracuse, September 11th, 12th, 13th, was highly creditable to the farmers of New York, and was calculated to elevate the agricultural interests in this state. The attendance was far greater than at any former exhibition of the society, the number of persons being variously estimated from one hundred to one hundred and fifty thousand. I am inclined to a lower estimate, knowing that such estimates are almost uniformly above the actual numbers. There were, however, doubtless from seventy-five to one hundred thousand persons in attendance, and the receipts for admissions were between eight and nine thousand dollars.

The exhibition was in most departments quite extensive, as well as superior in quality and merit. The cattle show may, without exaggeration, be said to have been the greatest exhibition of fine stock ever held on this continent. The Short Horns, the Devons, the Herefords, with all their grades and crosses, were represented by individuals from the best herds, and in numbers far exceeding any former cattle show I have ever attended. Of horses there was also a large show, and among them many superior ones. But perhaps they were not so universally fine as were the cattle. The Morgan breed was represented by many good animals, and I noticed several fine colts, the descendants of a blood horse imported from England by a gentleman of this country a few years ago.

To the exhibition of sheep, which was, as usual, highly creditable, your New England wool-growers contributed some fine animals. We have for several years past been indebted to the wool-growers from Vermont and Connecticut for some of the best sheep at our shows; and they were not this year at all unmindful of their interests. Many of the sheep exhibited both from this and other states were of superior quality. This is particularly true of the Saxons and the various families of Merinoes.

Floral Hall was the centre of attraction, affording, as it did, a fine display of flowers, fruits, &c., of every variety, arranged in the most tasteful manner, and so as to give the best effect to the exhibition. It was visited by many thousands. Manufacturers' Hall was also quite well filled with specimens of goods of nearly every description, including a large display of domestic articles, highly creditable to the ingenuity and industry of the exhibitors.

But it was the show of agricultural implements which reflected the greatest degree of credit upon American enterprise and ingenuity. Probably no similar occasion has ever, at least in this country, presented such a vast display of improved implements as were exhibited on this occasion. And here again we must acknowledge allegiance to New England skill and enterprise. To Massachusetts must the credit be awarded of excelling in this branch of mechanics, although we have in New York some establishments which are fast following in the footsteps of your Boston and Worcester manufactures.

It would afford me much pleasure to notice in detail many articles and incidents connected with this fair; but the character and plan of your publication forbids any indulgence in long communications, and I will not trespass upon so excellent a regulation. I must not, however, close without a notice of the address which was delivered by Professor Johnston, of Durham, England, who has visited this country at the invitation of our society, for the purpose of addressing them on this occasion, and to gather such information as could be obtained in relation to

the agricultural capacity and practices of this country. For the correctness of its statements, the vast fund of knowledge presented, the vigor, originality, and beauty of its style and expression, this address may be regarded as a model by all who are called upon to address similar assemblages. It was a production of great ability, and such as might have been expected of a man so highly qualified to impart information upon agricultural subjects. The address will of course be published.

In addition to the usual attractions of such an occasion, there were this year many attractions of an unusual character; not the least of which was the attendance of many of the distinguished men of this and other states. Among the visitors in attendance I now remember the names of Henry Clay, of Kentucky, Governor Fish, Lieutenant-Governor Patterson, Ex-Governors Marcy and Young, of this state, General Wool, of the army, and many distinguished men of this and the other states of the Union and of Canada.

To a New Yorker who takes a just pride in the improvements in the agriculture of his state, and who regards these annual gatherings, and the increasing interest which they are attracting, as an index of public sentiment, the result of the exhibition just closed is highly gratifying, in every respect. To you, who feel (as all New Englanders I am sure do feel) interested in our welfare and success, this brief account may not be altogether uninteresting. The exhibition just closed has far exceeded any heretofore held, and is a triumphant vindication of the ability and public spirit of the farmers of New York.

ROME, N. Y., Sept. 20, 1849.

For the New England Farmer.

THE TRUE FARMER.

MR. EDITOR: With your permission, I am going to give you my views and ideas of what constitutes the true farmer. We know that the country is full of those who style themselves *farmers*; but, in my opinion, there are but few who can justly lay claim to so honorable a title, as the *true farmer*. There are such, however, scattered here and there all over the country; and wherever they may be found, they deserve the respect and esteem of all classes of citizens, — because they stand at the head of society, — as there is no occupation in the known world more respectable than that pursued by the tiller of the soil.

It was the first business pursued by man in the garden of Eden; and it should stand *first* now. But this is not justly telling what and who the true farmer is. Well, to come right at the point, the true farmer is one who owns a respectable sized farm, stocked with just enough to keep the farm in a good condition, and the grazing herds in a thriving state. This is *one* essential feature. Next in order, he must be one who has been brought up to the business, and served a regular apprenticeship therein, that he may know how to take the proper care of the grazing herds that roam over his fields, and understand how to provide for their wants at all seasons of the year. This is another essential feature.

Again, he must be acquainted with the nature of soils — understand what soils are best adapted to the different crops which he grows. He must be the overseer of his own affairs, as connected with his farming operations, and see that every thing is carried on under some regular system or plan. He must see that his sons are brought up to labor, and provide for them tools suitable to their age and strength. He must have a workshop on his premises, provided with tools, where his sons may employ their time rainy days. (This is one necessary fea-

ture connected with the farmer's trade.) He must, too, provide well for the female part of his household. Every thing should be made convenient in and about the farm-house; the dairy room should be handy, and all its departments provided with the necessary articles with which to carry on the business in the most expeditious manner.

Again, on washing days and other particular days of hard labor, he will have the good wife assisted by some one of the male part of the family, to make her labors less arduous, that her constitution may not be too early broken down. He will instruct his wife to train up her daughters to moderate labor, that they may be prepared, like herself, to engage in the duties which may one day be assigned them. He will, too, have a properly cultivated flower garden, for the benefit of his wife and daughters, deeming it (as it actually is) a lasting benefit, inasmuch as it is a place of resort and exercise in the open air, which is necessary for the preservation of health.

Again, every true farmer will provide for his wife and daughters a good, steady horse and comfortable carriage, that they may attend meetings, visit the sick, call on their friends, &c., &c. To speak in general terms, the farmer's wife is kept too closely confined in doors — is made too much the slave of man; consequently is deprived of what is essential to her health and happiness — exercise in the open air. The true farmer is the true gentleman, and wherever such a one is found, his worth ought to be duly appreciated.

A. TODD.

SMITHFIELD, R. I., Sept. 1849.

For the New England Farmer.

BONE DISORDER IN COWS.

MR EDITOR: I have seen occasionally, in your journal and in other agricultural papers, accounts of a supposed disease in the bones of milch cows, owing, as is alleged, to the exhaustion of the phosphate of lime in the pastures where they feed. And bone meal is, as I am informed, actually sold in considerable quantities, to be fed to cows affected with this disorder. The whole theory, with respect to this bone disease, has always appeared to me to be unreasonable, and not supported by facts. I say unreasonable, because lands which yield an abundance of good feed — whether such lands be old or new — would be just as likely to afford sufficient nutriment to the bones as to the flesh of cattle fed upon such lands. If cattle are kept in good condition, as they ought to be kept, who would dream of their bones wasting in consequence of a supposed deficiency of some ingredient in their food? And why, too, should cattle only in some particular districts be affected with this disease, and not in other districts, where the soil is equally exhausted — if we may infer that fact from the length of time during which they have been in pasture.

But what facts are adduced in support of this theory? In some districts, cows in milk are found to be sickly: bone meal is given to them, and they recover their usual health. Does this prove that their bones have wasted away, or have threatened to *waste in*? Not at all, as it seems to me. The inference is not a legitimate one, but would seem rather to be jumped at, from the nature of the remedy found to be beneficial in these cases. Before we pronounce upon this wasting away of the bones, it certainly would be more satisfactory to have the matter thoroughly investigated by dissection of some animal thus affected. If the bones were gone, or partially gone, I suppose there would be no disputing the nature of the disease. But this has not, to my knowledge, as yet been shown, and I much doubt if it can be shown.

In questions of this kind, however, it is not always safe to reason from general principles. As the present one is of a practical nature, in which all farmers are more or less interested, they should obtain the best information in their power respecting it. It was with this view that I addressed a line to Dr. William Saunders, of Salem, a highly intelligent and successful veterinary surgeon, requesting his opinion on the subject. From his known skill and extensive practice, I had full confidence that he was qualified to give an opinion entitled to as much weight as that of any person with whom I am acquainted. From his letter in reply I make the following extract:—

“I have much pleasure in answering your request of my opinion concerning a disease called the *bone disorder*, or falling in of the bones, in cows, as printed in the New England Farmer of January 6. I beg leave to differ in my views with that journal, though at the same time I have much respect for its great utility in forwarding agricultural pursuits. That the cow, or any other animal, for want of consistent food, will consume away, is natural; but that it would *particularly* affect the bone, is, in my humble opinion, altogether out of the question; consequently, I must dissent from allowing the falling in of the bones, as described in that journal; nor can I admit of any direct bone disorder of that kind.

“I have given bone meal to neat cattle as a medicine, particularly to such cows as are frequently searching after bones, with good effect. I would therefore cheerfully recommend it in all such cases, or as a corrective of any acidity on the stomach, which in my opinion is the cause of this continual hankering after old bones.”

This appears to me a more reasonable mode of accounting for this (so called) bone disorder, viz., that it is a sour stomach which impels animals to crave bones, than that their bones are falling away, and they seek to supply the waste by the consumption of the raw material. There is more of the bone meal given to milch cows in Danvers than in any other part of this county. And, indeed, I learn from Messrs. Ruggles, Nourse, & Mason, that they sell large quantities, to be used there for this purpose. It must be found to be beneficial to their cows, or the farmers of that town would not go to this expense. Why their cows should be thus peculiarly affected, so as to require the use of bone meal, it would be difficult to determine. Whether it is owing to any peculiar grasses or herbs which they find in the pastures, which deranges the stomach, or to the use of *shorts*, which are used there very generally on the milk farms, or to what other cause, might be worthy of inquiry. Of this I am sure — that I have never known this bone meal to be given to cows on farms in this immediate vicinity. Perhaps they might have as good an appetite for it as other cows, if it was offered to them; but as they are generally in a healthful condition, and live to a respectable age, till they are turned off to the butcher, without any indications of a failure in their bones, they may as well, perhaps, be left without it. For a well cow, good food, good shelter, and good care, are the essential requisites to keep her in health; and to prescribe medicines in anticipation of disease, may only bring her to a premature grave, and make for her the epitaph, “I was well — I would be better — I took physic — and here I am.”

ALLEN W. DODGE.

HAMILTON, Sept. 18, 1849.

EDITORIAL REMARKS. — We have no favorite hypothesis on this subject, that we wish to support, and we are much obliged to Mr. Dodge for starting a more thorough investigation, and to Dr. Saunders for contributing his views, which are entitled to great weight, both from their plausibility and from his

high rank as one of the most skilful veterinarians in the country. What we have published, in regard to the bone disorder in cows, we regard more as a proposition than as a well-established fact.

One thing is certain: we believe that milch cows, in particular, are liable to a disorder, and that its symptoms and indications are as we have stated, (p. 18,) and that ground or dissolved bones are a remedy. The disease may have a wrong name, and even the cause assigned may be wrong; yet the facts as to the symptoms and cure are important and useful, and we hope that the hypothesis will be fairly tested.

We cannot agree with our friend, who has kindly furnished this valuable communication, that the theory is unreasonable and unsupported by facts; for there are facts that are strong circumstantial evidence in its favor. And as to lands yielding an abundance of food for cattle, and supplying nutriment for flesh, and not for bones, is nothing more strange, than it is that some food will produce a great flow of milk in cows, but a want of flesh, and other kinds will have an effect directly the reverse; or that apples and potatoes will cause pigs to grow well, but will not fatten them like Indian corn.

We do not suppose that any animal that is living and moving about has a perceptible decay in its bones; but the animal may feel a deficiency there before the most skilful anatomist could see it. Can he, by dissection, discover the seat and cause of every pang of rheumatism? Disease in bones, and its effect on animals, must precede, and probably progress considerably before it is perceptible to the anatomist.

Acidity in the stomach of the animal may cause the symptoms that are ascribed to the bone disorder, as various internal diseases cause the animal to draw herself up, and produce a shrinkage of the whole frame, even of the bone work, from the contraction of the skin and muscles.

We do not think that the free use of shorts would tend to produce what is called the *bone disorder*, or acidity in the stomach, as it contains a large portion of lime, which, if separate from the food, would be a good medicine to correct these disorders. Yet it may be in such a state, as to its preparation, as to cause acidity.

It is difficult to prove the existence of some diseases, or what effects a cure; for in many cases, a patient may get well, through medical aid, though doctored for a wrong disease; and again he may get well in spite of medicine which has an injurious effect. A man may be dosed with sulphur for the salt rheum, and thus cure the itch, which was mistaken for the rheum.

Still we think there may be a bone disorder, and that there are stubborn facts to support it. Bones are composed, in a great measure, of phosphate of lime, or bone earth; and this is an important constituent in milk; and lands long cropped, and the crops removed from them, and no manure returned to them, cease to produce vegetation that abounds in phosphate of lime. Now, as there must be a drain of this material to supply the milk, is it not reason-

able that there is a deficiency in supplying the waste of the bones?

Generally, cows only are affected with the bone disorder, and those only while giving milk; and when diseased in this way, while in milk, they recover on going dry. The bone disorder is more common on old lands, where the phosphate of lime is evidently exhausted, from the nature of the crops; and in the county of Cheshire, England, distinguished as a dairy district, this proposition was made an established fact by analyses of the soil. This subject is open, and we invite the attention of men of science, and of skilful practical observers, to its thorough investigation.

For the *New England Farmer*.

PORCULATION.

Do not be alarmed, my friend, at the ominously-classical caption of this paper. I do not propose to inflict upon the readers of the *Farmer* any stupidly-learned essay upon the pachydermatous order of quadrupeds; or to clamber, for the wonder of gazers, among the branches of the genealogical tree of the genus *sus*. Noah and his ark are safe from any domiciliary visit from me, and for the very sufficient reason, that I myself have been, at times, almost deterred from the prosecution of inquiries, as to matters of interest upon a farm, by the terrible long jaunt among the musty records of past ages, which writers will force upon learners. The student of nature, who seeks innocent information as to the peculiar breed of the *boned turkey*, which delighted his palate at the hesternal supper party, is crammed incontinently with the mythology of the ancients. Groaning yet under the undigested mass of information which he had sliced from the subject of his inquiry, he is forced to swallow *Æsculapius*, as a bolus, because patients who survived a doctor formerly slaughtered a cock to appease his disappointment. The lover of veal is treated to a dissertation on "bos taurus." And one must see a maze in the ear of corn, which he is manufacturing into nutriment, under his grinders, unconscious heretofore how "zea maize" tasted.

I propose to myself, with your concurrence, Mr. Cole, to clear a path which I found infested with brambles, and to render it unnecessary for those who contemplate the breeding of swine for their own use, or for market, to undergo the expensive and disheartening probation which fell to my lot.

The chief dependence of the farmers of Rhode Island for the annual supplies of their sties is upon droves which are brought from Connecticut. There are many of the larger landholders who raise their own swine, and a few who breed on a pretty large scale. Nevertheless, I am safe in naming the wandering drover as the chief pig purveyor of the state. There is not, to my knowledge, a boar a year or more old, within eight miles of my residence, except in the city of Providence. If there is one, he has been 'cute enough to evade my search.

Now, a drove, as it passes along through the villages, is constantly culled, until the last man is forced to take up with the land shark, or to remain hopelessly pigless until the arrival of the next caravan.

It has been my fortune to see some of these migrating grunTERS; and I am fain to confess that for any other earthly purpose than for a match against time, the majority of them were utterly worthless. Ah! and I well remember a couple which a neighbor, knowing my wants, secured for me on their tramp. It was, indeed, the only time they ever were

"secured." No edifice which ingenuity could invent was proof against their vaulting ambition; no rear wall impervious to their geological researches. They had the legs of a reindeer, the snout of a hippopotamus, the ears of a fox-hound, the head of a hedgehog, and the hide of a rhinoceros, combined with the appetite of a boa constrictor, and the fattening propensities of a hydra lion fire engine. They were the grave of a great deal of meal, those two!

You may be sure that no great amount of cogitation was required to determine me to become an agricultural Columbus, and to discover new worlds of pigs, or, at least, worlds of new pigs.

Now, this is a point at which the prudent farmer ought to ponder well, and to make that selection among the different improved breeds which is adapted to his wants. For our region of country, we require a pork hog. Farther south, they need a bacon hog; and there are varieties adapted to these requirements. The Berkshires, pure or crossed, are generally allowed, I believe, to be the fittest for bacon. But they do not fill the eye or the pork barrel of the New Englander. The best pork hog, all things considered, is the Suffolk, or a cross of the Suffolk and Middlesex. The greater part of the pigs on Prince Albert's farm, near Windsor, are Suffolk. The late William IV. patronized this breed. But they need no royal patron. They tell their own story, and the meal account against the pork barrel is their eulogy. They are well-formed, compact, with short legs, small heads, fat cheeks, quiet, and easy fatteners. The color is generally white, though occasionally a few black spots occur. They are hardy in constitution, and of a quiet disposition. These are emphatically the *farmer's hogs*, and better repay care and expenditure than any other breed which has come under my notice.

In my search for these animals, I fortunately met with the advertisement of Mr. W. Stickney, of Boston, in your paper; and many weeks had not elapsed before I had a splendid boar from his herd, grunting for his lost loves and his deserted piglings in Vermont. That veteran friend of the farmer and of all the animate creation, John I. Skinner, now editor of *The Plough, Loom, and Anvil*, was honoring me with a visit soon after the arrival of his porkship, and he pronounced him one of the finest animals he had ever seen. Now, there may be better judges of what constitutes a good pig than Mr. Skinner, but the world has not learned their names.

To test the value of this pig, as a feeder, I instituted an experiment with four hogs, two of them Berkshires, weighing about twelve stone, (of fourteen pounds,) one excellent pig of nondescript breed, called *Our Own Hog*, weighing about thirteen stone. The boar was a trifle below three hundred and fifty pounds. These pigs had daily the same allowance for two months. The Berkshires became gradually more and more lanterny; the nondescript gained space; but the boar was in "killing" order.

Mr. Stickney is the only one, within my knowledge, who is seriously engaged in improving the too much neglected race, by large and judicious importations, and systematic breeding. I found at his farm, in Vermont, about one hundred head, (and ninety-eight tails, for two were *decaudized*;) and a finer lot of pigs I never again expect to see congregated.

The man deserves well of his country who enables it to fatten two hogs where one starved before; and I most sincerely trust that Stickney will be rewarded, not only in dollars and cents for his outlay, but in reputation for his public spirit.

To my fellow-farmers of New England, and especially to our Rhode Island farmers, I can most conscientiously, and I do most earnestly, recommend to see this choice lot of swine, and to make a selection

therefrom, for the benefit of themselves and their neighborhood.

And now, my dear Mr. Cole, I fear you have had hog enough to make you bristle up in rebellion against the dose. But you are a public servant man, and should be as uncomplaining as the president. It did occur to me, at the commencement of this paper, to attempt to convey to your readers a portion of the pleasure which I enjoyed on the trip to Vermont; and to have added a word about other choice stock, and divers vegetable productions which I found at Mr. Stickney's extensive domain, and some of which had an introduction to my teeth on the spot. But there is such a thing as tiring people to death; and I leave the subject, though unwillingly, perhaps to return to it at a future day.

Very truly yours,

W. S. KING.

WOODLAND FARM,
Near Providence, R. I., Sept. 1849. }

For the *New England Farmer*.

HISTORY OF AGRICULTURE, NO. I.

MR. EDITOR: Agriculture may be considered the most ancient of all the arts, and is certainly the most important. The earth was, by divine appointment, to furnish sustenance for man, and after the fall he was doomed to procure it by the "sweat of his brow;" hence husbandry, or the practical part of agriculture, was the first and most important occupation of Adam and his descendants. We learn, from sacred history, that the two sons of Adam, Cain and Abel, were employed in this manner; the former, a tiller of the soil, and the latter a keeper of sheep. Agriculture has the merit of reclaiming mankind from the hopeless state of a wandering life, by drawing them together in communities, and imposing on them the necessity of a fixed habitation. We are left wholly to conjecture as to the implements with which the work of tillage was carried on in the early days of the world, or what degree of art was employed in producing the fruits of the earth; but it is supposed that the antediluvians were in possession of many arts and inventions that were in process of time lost, or but imperfectly retained by the several tribes or nations that were scattered abroad after the confusion of tongues. Noah and his posterity retained the art of agriculture; for we learn that immediately after the flood, he commenced the cultivation of the vine.

For many centuries after the flood, before mankind had become very numerous, and while every tribe could range over a large extent of country, their property consisted in their flocks and herds, and their chief employment in the care of them. This continues to be the condition of some of the nations in Northern Asia to the present day, and agriculture is but little attended to. The line of Ham, who took possession of Egypt, applied themselves to the cultivation of the soil with so much industry, ingenuity, and success, that Egypt was enabled to supply its neighbors with corn during a period of famine, and they were also the first people who applied themselves successfully to the cultivation of the earth. But they were invited to it by the fertility of their soil, occasioned by the annual overflowing of the Nile; they were not backward in assisting the liberality of nature; they employed themselves in draining, irrigation, and other methods for the improvement of their lands; and by these means they were enabled to derive all the benefits which their benignant river was capable of affording them. These works were carried on with energy by Sesostri, nearly two thousand years before the Christian era. The Egyptians were so sensible of the blessings

which agriculture afforded, that they ascribed the invention of the art to their god Osiris, and the culture of wheat and barley to their goddess Isis.

ROCKINGHAM.

For the *New England Farmer*.

PRESERVING SEED.

Mr. Editor: As the season has arrived when the various kinds of seeds are coming to maturity, the collecting and preserving of which is an important branch of agriculture, it is of the greatest importance to have sound and genuine seed, and we must not expect a good harvest without it. Imperfect and unripe seeds will sometimes vegetate and grow, but they will not produce healthy and vigorous plants. Many experiments have been made which go to show, conclusively, the superiority of full-grown and well-ripened seed. Every farmer and gardener should raise his own seed, and then he will be certain that he sows that which is genuine. He should devote a small portion of his garden expressly to the raising of seeds, and much care and attention should be paid to this department of the garden. We all know how extremely perplexing it is to have seed fail of vegetating, or prove to be different from what it was planted for. In collecting and preserving seeds, only those that are full grown and well ripened should be kept for use; and they should be well dried before they are put away, and should be kept in a dry place. If seeds are kept in a damp place, or are put up moist, they are most sure to spoil before spring. Much more might be said on the subject, but I will close for the present.

ROCKINGHAM.

USES OF CONVERSATIONAL MEETINGS AT FARMERS' CLUBS.

Every one who has paid attention to the subject of education has found it difficult to induce those to study in middle or after life, who have not been accustomed to it in their youth. As a general rule, those who arrive at the age of manhood without previous study can seldom be induced to apply themselves to books, and therefore they pass through life without availing at all of the knowledge of others. It is erroneously supposed by many that it is more difficult to study, or rather to retain what we may learn, in manhood, than in childhood: mere words, it is true, may be more readily retained by a child; but the truths imparted by words can be more easily understood, and therefore more permanently impressed on the mind, in after life. Such truths as apply to our business are seldom or never forgotten; and therefore we find our greatest jurists, and indeed our most original men of all kinds, among those who are styled self-educated, having improved their minds after arriving at the age of manhood. A child may commit a whole book to memory at the rate of one or two pages a day, and thus in twelve months be able to repeat the words. A man may read the same book in one or two days, and although he may not remember *verbatim* a single passage, still his general knowledge of the subject of which the book treats, will be infinitely superior to that of the child; for impressions made on the more mature mind of the man are independent of the mere words by which the idea was originally received. But notwithstanding this fact, we are answered that men will not read, and that it is even difficult to induce them to attend lectures. All this is true, and so far as the lectures are concerned, we are not surprised at it; for lecturers generally become tiresome from their endeavor to exhibit their own erudition rather than to

instruct their audiences. Under these circumstances, the question naturally occurs, How are we to induce men to improve their minds? We answer, By inducing them to believe that they are instructing others; and the plan is as follows: Suppose one hundred farmers should meet together once a week, or once a month, for the purpose of discussing the best mode of performing any agricultural process, and that, instead of its being a mere meeting for promiscuous conversation, they would choose a subject, appoint a chairman, and adopt the following rules of order:—

1. That a chairman, two vice-chairmen, and two secretaries, be appointed by the members attending the third conversational meeting.

2. That it shall be the duty of the chairman, and, in his absence, of one of the vice-chairmen, to preside at all conversational meetings held during the winter; and that the secretaries keep minutes of all the important facts stated at these meetings, in a book to be provided for the purpose; which book shall be the property of the institute, and open to the perusal of all the members.

3. That no person shall be at liberty to speak more than fifteen minutes at one time, without permission from the meeting.

4. That in no case will a member be permitted to reply to remarks made by another member; it being understood that at these meetings members are only expected to state such facts connected with the subject of conversation, as their experience or knowledge may suggest, but not to encourage debate.

5. That a list of subjects for conversation be posted in the room, to which each member may add such as he may be anxious to avail himself of the information of members upon; it being understood that these meetings are intended to disseminate any information possessed by one member to the whole meeting.

6. That, previous to the close of each meeting, the chairman shall propose three subjects, (if so many remain undisposed of on the list,) one of which shall be selected for the next evening's conversation.

7. That the members shall be invited to attend at 7 o'clock, and employ their time until 8 o'clock in social intercourse, thus enabling them to become acquainted.

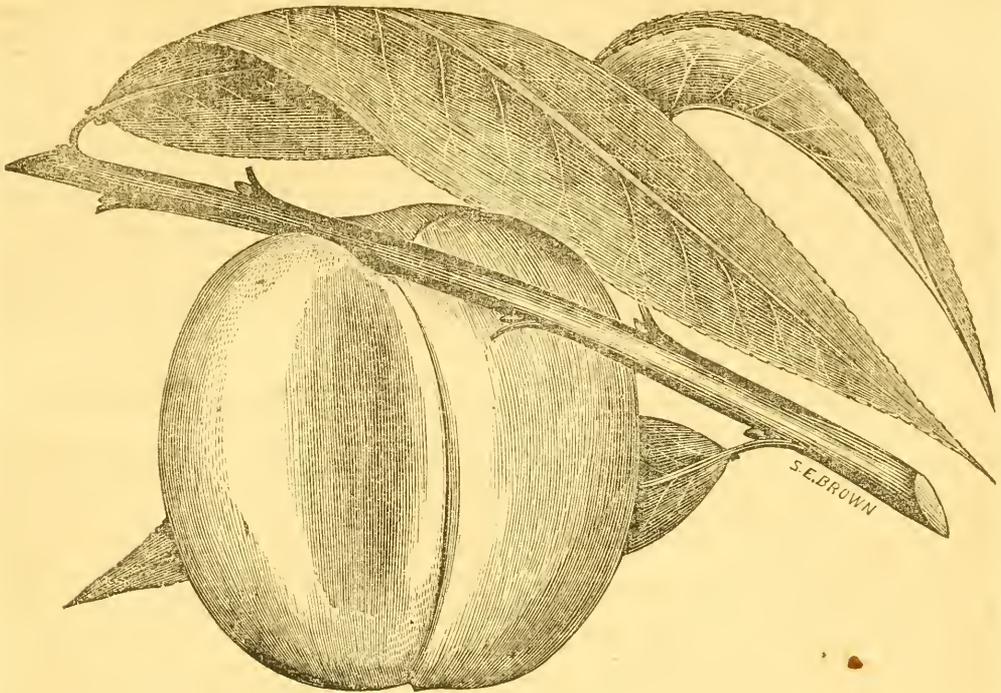
8. The chairman shall call the meeting to order at 8 o'clock, and in all cases adjourn at half past 9 o'clock, if not previously adjourned.

9. All questions of order shall be decided by the presiding officer.

10. Members may invite their friends to attend these meetings. — *Working Farmer*.

CAMOMILE.

A few roots of this plant should have a place in every garden. Not only are its medical qualities highly valuable, but its presence among vegetables is supposed to be an *Ægis* of protection against many diseases to which they are subject. It should be translated into warm and rich soil, early in the spring, and be assisted, during its early development, by copious manuring and frequent pressure. When plants, late in the season, exhibit symptoms of decay or general debility, the planting of a small root of camomile in their vicinity is frequently the most speedy and efficacious remedy that can be applied. The odor, or aroma, diffused by this plant, is also known to be highly repellent to many kinds of algereous insects, and its presence among those species of plants and vegetables infested by such enemies, will protect them more effectually than almost any other agent known, and at comparatively small expense.



THE LINCOLN PEACH.

This peach is probably a native of the town of Lincoln, in this state, as it has been cultivated there for fifty years, and is regarded as one of the most valuable varieties for orchard culture. The tree is hardy, productive, and a good, strong grower, forming a large, vigorous tree. The fruit is hardy against storms, and it is of the largest size, and of a beautiful appearance, selling at the highest prices, when raised under good culture, and offered for sale in fine condition and the best style. The largest of these have sold at five dollars a bushel this season, and they have been retailed at six cents each.

The Lincoln peach ripens from the 10th to the 20th or 25th of September, coming into use, generally, as the supply of southern peaches abates; and the Tarbell, and Smith's Favorite, two other valuable varieties, cultivated in Lincoln, follow in quick succession, and run through the season, as late as any peaches will ripen well.

The fruit is very large; roundish-oval; deep cavity; suture on one side, deep towards and at the top, slight point at the top; rich golden yellow, beautifully mottled and blended with brilliant red, with a blush of deep red full in the sun; flesh bright yellow, with a tinge of red at the stone; melting, juicy, rich, sweet, luscious, and of fine flavor; the stone free, rather small, oval, pointed, ragged.

We selected this variety from its fine appearance in the orchard, and high reputation; and we are indebted to Mr. Charles H. Tarbell, Lincoln, for scions, which we set last season, and they have made

a fine growth in the nursery; also for specimens of the fruit for our drawing. We consider this old standard native of our New England hills superior to most foreign kinds of peaches that make so conspicuous a figure in most of our fruit books and nursery catalogues. We have good native peaches enough to fill a long list, even ten times as extensive as any one would wish to cultivate.

USE OF THE ROLLER ON GRASS LANDS.

In no branch of husbandry is the roller more an implement of utility than in the cultivation of grass. It renders the soil compact and solid; it encourages the growth of the plants, by bringing the earth close to every part of the root; it assists in filling up and levelling any inequalities in the surface of the field, thereby preventing surface water from remaining stagnant, and eradicating the grass from particular spots; and it tends to hinder the drought from penetrating, which is an effect of the greatest importance. In fact, a grass field cannot be too often rolled; and it is not going too far to assert, that the application of the roller, in autumn, to prepare the roots for resisting the winter frosts, and in spring to set them firm after those frosts, every year while the field remains in grass, will amply repay the expense. — *Trans. of the Highland Society.*

The steam engines at work in London are equal to the united force of 1,900,000 men, and are managed by only 36,000 men.

SALT—ITS USE IN DESTROYING VERMIN AND WEEDS.

We turn again to Johnson's Book on Fertilizers. Under the head of Common Salt, he gives numerous experiments with different qualities of that substance, applied to the various grains, vegetables, and grasses; but as we doubt whether the price of the article in this country would not make it inexpedient to use it, in preference to cheaper and more efficient manures, we choose rather to extract what he says of it as to its effects in the destruction of vermin; and this we do in some hope that it may be advantageously employed as a means of arresting the ravages of pestiferous worms, flies, and other insects, that infest our fruit trees, and fields of cotton and grain; increasing in variety and voracity of late years in such a degree, as to threaten the annihilation of some fruit and ornamental trees, and seriously to impair the value of cotton plantations.

There is, says the writer before us, no agricultural use of common salt more undoubted than in the destruction of vermin. The effect, too, is direct, and the result immediately apparent. For this purpose, from five to ten bushels per acre are abundantly sufficient. The agriculturist need be under no apprehension that the salt will destroy his crop, for twenty bushels of salt per acre may be applied to young wheat with perfect safety. I have seen twenty-five bushels used with advantage.

No person has perhaps used salt for this purpose to a greater extent than Mr. Busk, of Ponsbourn, in Hertfordshire. "I have used it," said this gentleman, in a recent communication to the author, in this and in the last season, "as a top-dressing to nearly two hundred acres of wheat, having almost exclusively in view the destruction of slugs and worms, with which my land was very much infested, and this object is very satisfactorily accomplished. Some part of my land is light and strong, well adapted to the growth of beans and wheat. In applying the salt, little attention was paid to the quality of the land, or the season of the year; but those spots and those times were selected where the number and ravages of the vermin seemed most apparent, and in every situation, and at every time, the effect appeared equally beneficial. A little more experience may perhaps suggest some more accurate rule as to season; but I am of opinion that the earliest will in general be found the best; at any rate, I would avoid sowing, if I could, immediately after a fall of snow, as snow produces, on places recently sprinkled with salt, an unpromising appearance. Perhaps the best mode may be, what we have very satisfactorily in some instances tried, to sow it on cloverleys and bean stubble just before they are ploughed. If, however, there is some doubt as to the most eligible quality of the land, or period of year, there can be none as to the fittest state of the weather or time of the day: an opportunity should be selected when the weather is mild and moist, but not rainy — when the land is damp, but not wet; and salt should never be sowed when the sun is shining, but either early in the morning or late in the evening, after sunset. We sow it out of an ordinary seed shuttle, at the rate of four or five bushels per acre. In the morning, each throw may be distinguished by the quality of slime, and the number of dead slugs lying on the ground. The finer and drier the salt is the better. The positive advantage," adds Mr. Busk, "I cannot state accurately in figures, but I am confident it has, in every instance, been considerable; and in some fields it has been the means of preventing the total destruction of the crop."

For destroying worms and other vermin in oats, salt has been successfully employed by Mr. Walker, Rushyford, in Durham, at the rate of six bushels per acre.

For the same important purposes, salt has been regularly employed by Mr. Archibald, gardener to Lord Sheffield, at Fitcham, in Sussex; as well as for promoting the destruction of weeds. He trenches the ground and sprinkles it with salt every winter, and is never troubled with predatory vermin. When Mr. Archibald first came to Sheffield Park, in 1828, he found the peaches and nectarines regularly eaten and destroyed by some kind of vermin. Getting up early in the morning, he found it was done by the snails, who, as soon as the sun was risen, so as to shine with power on the south aspect, retired back to the northern side. He immediately laid a thick layer of salt along the northern wall, and found then, as ever since, that it proved a most effectual barrier to the intrusions of the snails; and that it has certainly no bad influence on the trees or fruit. — *American Farmer*.

HOW TO MAKE A HORSE SURE-FOOTED.

A singular account of the manners of the ancients in the manner of breaking in their horses, rendering them sure-footed when galloping over the most irregular and dangerous grounds, is related by Vegetius. The Parthian horses were lighter and hardier than those of the Cappadocians or Medes, and were the best war horses. A spot of dry level ground was selected, on which various troughs or boxes, filled with chalk or clay, were placed at irregular distances, and with much irregularity of surface and of height. Here the horses were taken for exercise, and they had many a fall as they galloped this strangely uneven course; but they gradually learned to lift their feet higher, and to bend their knees better, and to step sometimes shorter and sometimes longer, as the ground required, until they could carry their riders with ease and safety over the most irregular and dangerous places. Then it was that the Parthians could fully put into practice their favorite manœuvre, and turn upon and destroy their unsuspecting foes. They were as formidable in flight as in attack, and would often turn on the back of the animal and pour on their pursuers a cloud of arrows that at once changed the fortunes of the day. — *Scientific American*.

A PLEA FOR THE COW.

In our rambles about the city, we had the good luck to fall in with Davis, the man who keeps better cows, and has poured out more quarts of milk to the good people of Detroit, than any other man in it. And he knows something about cows too. He says that you farmers in the country hardly know the meaning of a good cow. He brings against you the grave charge of "scrimping" your cows, and well nigh starving them in the months of February, March, and April, so that there is nothing left of them but a "rack of bones;" and then they are good for nothing for the whole season. For a while, after being turned to grass, they are reduced to mere shadows by the scours, and by the time they begin to recover from this back-set, the flies are ready to tackle them; and thus the poor creatures are kept down the whole summer through. That, he says, is bad economy, and it is too. Verily, this is a great evil under the sun, and if we knew what to say or do to correct it, most gladly would we set ourselves to the task. If scolding would do any good, for humanity's sake, or the poor cows' sakes, we would scold until you cried, "Enuf!" And now, in the name of these poor, mute, suffering, meek, uncomplaining, unoffending creatures, we would ask what you mean by such treatment. Do they not reward you fourfold for all

you do for them. If you have no conscience then, no sense of justice, no humanity, no *cow*-manity, where is your selfishness? Where is your love for money, as well as of milk, butter, and cheese? Surely it must be stone blind.

We heartily wish that those poor creatures were gifted with the power of utterance, and could speak in their own behalf; that they would get up a sort of public sentiment among themselves, have a great cow convention, discuss their wrongs, peaceably petition for a redress of grievances, and, if denied, turn their horns against their oppressors. That would be right, and the whole world might be invoked as a witness of the justice of their cause, and the *cow*-ardly bipeds, who have grown so insolent in the exercise of their long-abused authority, would turn pale with affright, and be glad enough to come to terms. But we must restrain our indignant pen. — *Michigan Farmer*.

REVIEW OF THE WOOL MARKET FOR SEPTEMBER.

The market for wool has rather advanced than receded for the past month, especially in the lower and highest grades. The indications are now favorable for a still further advance on the finer grades. Cloths have advanced, and as the season draws to a close, the advance will be still more perceptible. Upon the whole, the prospect is truly cheering for both wool-grower and the manufacturer, particularly if friendly relations with France should be interrupted for any considerable time.

Sales have been made at the depot during the month, of No. 5 at twenty-six cents, of No. 4 at twenty-eight cents, of No. 3 at thirty cents, and a good demand at these prices. We do not, however, alter our quotations for last month. — *The Wool-Grower*.

PROSPECT FOR BEEF, PORK, AND PELTS.

Although cut meats are now low, we think there are causes at work that will materially enhance the price, and that pork will bear a good price this fall and winter. The increased facility afforded by the railroads for carrying fresh meats to market will enable the farmers generally to realize very good prices for their fat cattle, sheep, and hogs. The price for tallow and hides will be good this fall, and beef packing, if cattle have not too much advanced in price in the grazing districts of the west. The demand for pulled wool will be very active this winter, and at good rates, so that pelts ought to command a high price, though we hope few sheep will be slaughtered, for there are not enough now. — *The Wool-Grower*.

HORSERADISH.

Horseradish may be easily propagated by setting the roots in the fall. The soil should be rich, and have a southern or eastern exposure, with some protection on the north. We have found the following method quite successful. Parallel with some fence or building, which may serve to furnish the desired protection from the cold winds of the north, and at a slight remove from it, say two feet, dig a trench eighteen inches deep, and a foot wide. Fill this half full of old, finely-pulverized and garden loam, and insert your roots, eight inches apart, and finish the filling with good soil, in which there is a liberal admixture of old manure, lime — air slacked — and ashes. Keep the weeds down, and the surface light and permeable, and there will be little danger of failure. As soon as the plants appear, apply a com-

post, formed of one bushel leached ashes, two quarts of charcoal, finely triturated, and one peck of gypsum. Irrigate occasionally with soap-suds, or the liquid from the barn-yard.

The space in the rows, which has been cleaned during summer, should be again filled in, and the transplanted plants permitted to remain for future use. By taking up some of the roots towards the close of summer, carefully washing and scraping them, and preserving them in bottles by turning vinegar over them, and securing the bottles by melted sealing-wax, a supply of the article may be secured during the winter, as fresh and good as when taken from the soil. Some, who are unacquainted with this process, take up a quantity of the roots, and preserve them in sand, or other soil, in their cellars; but the article loses much of its goodness in this way. — *Germantown Telegraph*.

SHELTERING SHEEP.

Permit me to call the attention of farmers in Ohio and other sections of the country to the importance of providing shelter for sheep and other domestic animals. I have had some experience in keeping sheep at stacks, exposed to the drizzling rains and sudden changes of the weather during the winter season. In the winter of 1847-8, I put one hundred to stack, and gave them plenty of hay and some grain through the winter. The loss was over twenty per cent. I have no doubt they ate a fourth more than the same number that were protected, of which the loss was only two per cent. In consequence of this result, I built ample sheds during the past summer, provided with hay-lofts, one sixty by twenty, and another fifty-five by twenty feet. (I will just observe, for the benefit of those who are building sheds of this kind, that twenty-four feet is about the proper width, and the additional expense of four feet is trifling.) These sheds are set to two barns, and enclose the yard on three sides. Here, in separate divisions, I have kept my sheep the past winter. They have had good hay and plenty of water, and the yards were strawed three times a week. I feed some grain to my lambs in winter, and give some to ewes in spring. My loss up to this time (April 15) is half of one per cent. Many of my sheep were in low condition in the fall; yet I would like to compare them with any flock of the same number that have had no protection. E. HALLEY.

CLEVELAND, OHIO, April, 1849.
— *Albany Cultivator*.

THE NUMBER OF DOGS IN THE UNITED STATES.

If it be within the power of those who are to give directions about the next census, we hope they will take measures to ascertain the number of dogs, male and female, in every county in our Union; and, if it could be done, it would be useful also to have a return of the number of sheep killed by dogs. At two cents per day, it is probable that the cost of dogs is equal to the value of our exports of grain and provisions to England this year; and it is not improbable that our sheep husbandry would add as much more to the wealth of the country, if it were not for the fear of having the sheep destroyed by dogs.

We are no enemies of dogs, of genuine blood, kept and used for their legitimate and appropriate purposes: all such will ever find in us stanch friends and defenders. But we have a great aversion to idle, useless whelps — *nati consumere fruges* — born only to consume the fruits of the land — whether they go on four legs or two! — *Plough, Loom, and Anvil*.

Domestic Department.

DOMESTIC ENDEARMENTS.— I hold it indeed to be a sure sign of a mind not poised as it ought to be, if it be insensible to the pleasures of home, to the little joys and endearments of a family, to the affection of relations, to the fidelity of domestics. Next to being well with his own conscience, the friendship and attachment of a man's family and dependants seem to me one of the most comfortable circumstances of his lot. His situation, with regard to either, forms that sort of bosom comfort or disquiet that sticks close to him at all times and seasons, and which, though he may now and then forget it, amidst the bustle of public or the hurry of active life, will resume its place in his thoughts, and its permanent effects on his happiness, at every pause of ambition or of business. — *Selected.*

LEARN TO COOK WELL.— The health of the family depends upon it. We know there are those who associate luxury, effeminacy, and all dependent ills, with every attempt of the kind recommended. But we do not believe that health is promoted by eating raw carrots or doughy bread, — or that, to secure long life, it is necessary to turn cannibal. Nor were men made to graze like cattle, or eat food like dogs.

Nor is it necessary, in order to shun the errors of which we speak, to rush into the opposite extreme. Good cookery does not consist in producing the highest seasoned dishes, nor such as to foster a morbid appetite; but in preparing every dish well, however simple or common it may be. There are, for instance, families who never eat any good bread from one century to another, and have no idea in what it consists. Nor are meats cooked any better within their precincts. Those little, simple, and healthy delicacies, which the good housekeeper knows intuitively how to produce, are never seen here. Even a dish of potatoes cannot get themselves well boiled. A member of the family might as well fall among the Hottentots, as far as any proper nursing is concerned. These things ought not to be, nor is there any need of their existence, if the wife has any just notions of her obligations to herself and those about her.

The science of bread making, of meat broiling, stewing, roasting, and boiling, of vegetable cooking, and of preparing the multifarious small dishes of all sorts, which go to make pleasant the table, and all about, are hers, — hers to understand and practice. — *Prairie Farmer.*

A SUBSTITUTE FOR TEA.— Dr. Graham, an old and experienced physician in London, says, "I may state on very respectable authority, that the first leaves of whortleberry, properly gathered and dried in the shade, cannot be distinguished from real China teas."

Boys' Department.

A DOCILE, SAGACIOUS BULL.— Boys, when you come to be grown men, and have stallions, bulls, and rams for breeding on your farms, among other good points, or qualifications, don't forget what we think the most important, namely, a gentle disposition, or, in other words, *kind temper*. Many persons have been killed by ferocious males, and even females; you will see, therefore, that in propagating such animals, you endanger your own lives as well as those

of others. Our rule is, however good an animal may be in other respects, if wanting in docile disposition, not to breed from it.

We will now tell you a story of a Durham bull which belongs to Prince Albert, the husband of Queen Victoria, of England. This bull is kept in the little park at Windsor, so called, to distinguish it from the great park, at the head of which stands Windsor Castle, one of the largest and most magnificent buildings in Europe, and the principal summer residence of the Queen and Prince. This animal, possessing a kind temper, had been taught to work alone in a cart, like a horse. He made himself very useful in this capacity; and was of such great strength, that he would take a load of more than six thousand pounds (three tons) along a level road with as much ease, and perhaps more, than any one of you could trundle a wheelbarrow load of dirt not weighing over one hundred pounds.

Well, one day, after a hard morning's work, they turned him out into the park to feed and refresh himself on the rich grass that was growing there. In the same pasture was another bull, which proved to be of a vicious temper; for no sooner did he espy a farm laborer from the adjoining field attempt to pass through the pasture, than he commenced bellowing and pawing, and then rushed forward with all his might, determined to gore him to death. The ferocious beast had knocked the man down, and was in the act of stooping to toss him on his horns, when the kind tempered Durham bull, seeing his extreme danger, set off on a full run to his rescue. He came up with such prodigious force as to knock the wicked bull prostrate at a single blow of his head. He then commenced affectionately licking the fallen man, which so revived him, that he turned over, and perceiving that it was the friendly Durham bull, he at length got strength to rise up, when, mounting the back of his dumb friend, he was soon carried out of danger.

Now, boys, you will see the safety of possessing good-tempered animals; and there is not only superior safety, but greater utility, in them; for they will consume less food, do more work, give more milk, if females, and finally fatten better, and of course be more valuable through life and in the end. — *American Agriculturist.*

Health.

HONEY is, according to Mr. Milton, who has lately published a treatise on bees in England, a universal specific; and among its other valuable properties, he declares that it prevents consumption, and states that that destroyer of human life is not known in countries where honey is regularly taken as an article of food. Those who have less faith in the specific, may perhaps attribute the cause to difference of climate rather than to honey. The Italian singers, it is also affirmed, are greatly indebted to honey; but their practice is to sharpen it with a few drops of acid, though they sometimes take it in a pure state. — *Albany Cultivator.*

RIPE FRUIT AND DYSENTERY.— There is a pernicious prejudice with which people are too generally imbued; it is, that fruits are injurious in the dysentery — that they produce and increase it. There is not, perhaps, a more false prejudice. Bad fruit, and that which is imperfectly ripened, may occasion colics, and sometimes diarrhoea — but *never* epidemic dysentery. Ripe fruits of all kinds, especially in the summer, are the true preservatives against this malady. The greatest injury they can do, is in dissolving the humors, and particularly the bile, of which

they are the true solvents, and occasion a diarrhœa. But even this diarrhœa is a protection against the dysentery. Whenever the dysentery has prevailed, I have eaten less animal food and more fruit, and have never had the slightest attack. I have seen eleven patients in one house; nine were obedient to the direction given, and ate fruit: they recovered. The grandmother, and a child she was most partial to, died. She prescribed for the child burnt brandy and oil, powerful aromatics, and forbade the use of fruit. She followed the same course herself, and met the like fate. A minister, attacked with dysentery, ate three pounds of red currants between seven o'clock in the morning and nine in the evening: next day he was entirely cured. — *Tissot*.

Mechanics' Department, Arts, &c.

SELF-SUSTAINING BRIDGE. — We were present, on Wednesday afternoon of last week, to witness the construction of a bridge, thrown across an arm of the Cobbossee stream, in Gardiner, and invented by Mr. Littlefield, an ingenious and respectable citizen of that place. It is upon a new plan, which Mr. L. has got patented, and promises a great saving in the material, labor, and cost of construction. The sides of the bridge consist of two ellipses, one supporting the other, and making it self-sustaining. It requires no abutments or piers, and but a very little timber — the principal part consisting of two elliptical timber trusses extending from one side of the stream to the other, and fastened to horizontal beams lying crosswise the bridge at the ends. From these beams, wires, or small iron rods, extend by an opposite ellipsis the whole length of the bridge, and receive its floor, on which the travel is had. The ends of the bridge are supported by common cedar posts. Built for small bridges, they might be transported from one place to another with facility. Mr. L. thinks a span of almost any length would be safe and sure, and that bridges made on this plan will answer a good purpose for railroads. The bridge we saw him complete is forty feet long by ten feet wide, is capable of supporting a great weight steadily, was made and finished off in two days, and cost for materials and labor but about forty dollars. We see not why it may not answer an excellent purpose, and prove a very valuable invention. — *Gospel Banner*.

FIRE PROOF PAINT. — A paint that would be both a preservative to wood from the ordinary wear and corrosions of the weather, and at the same time a protection from fire, has long been a desideratum. Many experiments have been tried, and many failures made.

It has at length been accomplished by William Blake, Esq., whom many of our readers will recollect as having resided in this town several years ago, and who is well known as an estimable man in his social relations, as also being largely imbued with the Yankee spirit of industry and research. We last week had the pleasure of meeting with Freeland Holmes, Esq., of Bangor, who exhibited to us specimens of this paint, and gave us samples of the material before being combined with oil. Mr. Holmes is Mr. Blake's agent for Maine.

It makes a dense, compact covering on whatever it is placed, as hard as marble, and may be written upon as well as upon a slate; indeed, it is an artificial slate. By chemical analysis, it has been found to be made up of silica, alumina, and oxide of iron, as its principal ingredients. It is a mineral substance found by Mr. Blake in Akron, Ohio. The history

of its discovery and the experiments tried by Mr. Blake before he finally succeeded in ascertaining its true use, are very curious, and may form a chapter for a future number of our paper.

We can only add at present that it has been found by actual experiment to have been instrumental in saving a house from burning. The roof of the house in question was painted with this paint. A house next on one side took fire, and burned down. The burning shingles and cinders rained down upon this roof, which escaped, while the roof of the house next beyond, not so painted, took fire several times. So it has been proved by a "fiery ordeal," and stood the test. — *Maine Farmer*.

TO SOFTEN PUTTY, AND REMOVE GLASS WITHOUT BREAKING. — As it is often of importance to glaziers and others to remove glass from frames without breaking it, they will be glad to know, that a very strong solution of caustic potash, or caustic soda, applied round the panes for a few hours, by laying upon them an old rag dipped in the solution, will have the desired effect. — *American Farmer*.

HOW MUCH DO OUR CROPS OBTAIN FROM THE AIR?

One of the most interesting and important questions which employ the skill and science of the vegetable physiologists, as well as the practical farmer, is, How much, or what per cent. of the food of vegetables, is obtained from the atmosphere? That a large amount is obtained from this source has long been known or believed; but what proportion is not so well known, nor what conditions are necessary in order to enable the plant to take the most of this food, and assimilate it to its own system in the best way, is not yet fully ascertained. We have been very much interested in reading an address, delivered by Dr. Lee, of Buffalo, before the Monroe County Agricultural Society. He there asserts that plants — a field of wheat, for instance — obtain ninety-seven per cent. of their food, and consequently ninety-seven per cent. of the amount of the produce is derived from the atmosphere, and but three per cent. only obtained from the soil. How this fact is ascertained, or how it may be demonstrated, does not appear. There cannot be a doubt that every plant has some peculiar character of its own, which requires it to be placed in certain circumstances, in order to enable it to absorb what the air supplies for food, and to make it convert the greatest portion of it to the growth and maturing its peculiar fruits. There cannot be a doubt that oftentimes a plant may grow in an atmosphere full of the necessary elements for its increase and health, and yet some little requisite — the absence or scanty supply of another element — may prevent it from availing itself of this abundant supply of atmospheric food. Hence the importance of thoroughly understanding all the laws by which the germination, growth, and maturity of every species of vegetable which we cultivate are governed. But in order to ascertain these exactly, it requires more critical knowledge of chemistry and botany than the great bulk of farmers possess, and more time to be employed in research than many men, even of scientific experience, have to bestow upon it. For this reason, we suggest that agricultural societies should bestow some of their funds in the shape of premiums, or otherwise, for the purpose of instituting exact experiments upon this subject, and to elicit and make known to the public all the knowledge which can possibly be thus discovered. — *Maine Farmer*.

WHEAT RUST AND THE WEATHER.

MR. BATHAM: I notice much said in the Cultivator in regard to failure of the wheat crop by rust, &c., and many inquiries respecting varieties of wheat that are supposed to escape the malady. Now, it is a question, whether any variety of wheat will be found to escape the rust, or the effects of extreme heat, if either of these evils occur at the time the grain is in a green and milky state. If the grain or berry is so far advanced as to be in a stiff doughy state before the rust or extreme heat occurs, the crop will be but little injured; but if sown late, or from any cause the crop is backward, or if the rust or heat occur early in the season, so as to find the grain in the milky state, the result must be, shrivelled wheat.

I would advise farmers who have a good variety of wheat, that they have tested and found adapted to their lands, to stick to that variety, notwithstanding an occasional failure. Sow early, rather than late—manure, lime, and clover your land, and rest it occasionally with grass and summer fallow, and your wheat will seldom be injured with rust. But no precaution of the farmer can protect his wheat crop from the injurious effects of extreme hot weather, when it occurs for three or more days in succession, just as the grain is forming and in a milky state. I remember that in 1828 we had four days of extreme hot weather, the 25th, 26th, 27th, and 28th of June; so hot that it killed the wheat stalks just below the head, before the grain was out of the milk, thereby stopping the flow of the sap, which was needed to fill out the grain; and a vast amount of shrivelled wheat was the consequence throughout the country. No rust was found on the wheat that season; the weather was too dry and hot to produce rust. I was engaged in milling business that season, and purchased a large amount of wheat weighing from fifty-six to sixty pounds to the bushel. The lightest in weight offered me weighed only forty-six pounds; and light as it was, the farmers used it for seed, and it produced a good crop the following season.

The heaviest and best wheat I saw that season weighed sixty-three pounds to the bushel; and on inquiring of the grower, he informed me, that owing to wet weather in the fall, he was prevented from sowing until January, and his crop was so backward as not to be fully headed out when that extreme hot weather occurred in June.

The wheat crop suffered great injury in this (Jefferson) county the past season; first by the severe winter, next by extreme heat in June, and lastly by the rust.

Respectfully yours, &c.,

ROBERT SHERRARD.

SUGAR HILL FARM, NEAR STEUBENVILLE, O., 1849.
— *Ohio Cultivator.*

REMARKS BY EDITOR N. E. FARMER.—There is a great difference in wheat as it regards rust, some kinds being hardy and less susceptible to rust than others; and there is a great advantage in selecting hardy kinds; but even these will occasionally be liable to rust. When soil, manure, and the weather all combine to produce rust, the most hardy varieties are susceptible of injury. High manuring, especially of animal manure not well decomposed, has a tendency to produce rust. Some lands abound in undecomposed vegetable matter, which may undergo fermentation as the berry is filling, and promote rust. But this is seldom the case in this section. On the rich prairies, and fertile bottoms of the west, it is more common.

OPEN KNEE-JOINT OF A HORSE

SUCCESSFULLY TREATED WITH COLLODION.

I send you a case of open knee-joint treated successfully by the application of collodion. If you think it worthy of insertion in your valuable periodical, it is entirely at your disposal.

The wound in the above case was in itself of a very formidable character. The opening into the joint was between the two rows of carpal bones, and the injury done to the capsular ligament was extensive. And, what added more than any thing to the severity of the case, was the treatment the horse experienced immediately after the accident. The person who drove him at the time of the accident, not understanding the nature of the injury, sent him home, a distance of thirty miles, over uneven and stony ground. He was two days on the road. When he arrived at home, it was lamentable to behold the poor animal. From the synovial membrane being so long exposed, great inflammation had taken place in the joint, and the symptomatic fever dependent on this also was very alarming. However, the horse being a great favorite, my father was determined to give him a chance. Accordingly, he was put in slings, and the usual treatment employed, such as is generally thought adapted to those cases, but without any good effect. At length, I being a student in the medical profession, and knowing the adhesive properties of collodion, from having seen it applied upon the human body, the idea struck me, that it might prove of service in this case, in shielding the wound from the air, and preventing the discharge of synovia.

Accordingly, I advised my father to let me try it. We began by applying it several times in the course of the day for two days, at the end of which we had the great satisfaction of seeing the discharge of the synovial fluid completely arrested. The external wound was then treated in the usual manner; and at this time the cicatrix left is not larger than a shilling; and, what is more satisfactory, there is not any anchylosis of the joint. He has been blistered over the knee, and is at present in a small field, and is fast regaining his former strength. — *Journal of Veterinary Science.*

WEEVIL IN GRAIN.

The weevil is frequently very destructive to wheat in the granary. The following remedy, which we copy from the Philadelphia Dollar Newspaper, is very simple, of easy application, free from any injury to the grain, and we have no doubt that it is effectual, as salt is very destructive to insects. The term *weevil* is often, but improperly, applied to the little insect that destroys wheat in the field, by eating the berry in its tender state, which should be called the *grain worm*.

"Seeing an article in last week's 'Newspaper,' over the signature of W. C. S., Lancaster, Pa., on the destruction of the weevil, where he says they are so destroying the wheat there, as scarcely to leave a sound sheaf in the barns, and wishes to know how to destroy them, I will give him my experience on the subject. I have had them thousands strong in the barn for several years past, but have not had my wheat injured by them for two years, and have nearly got rid of them, and think I might have been entirely so, if I had not been anxious to prove the experiment. Last harvest, one year, on putting my wheat into the barn, I thought it a little damp, and concluded to salt it—a thing I had never done before, but thought it could not hurt it. I did so with all

I put in the mow; but what shattered off it in pitching on to the mow, was threshed and pushed upon the floor, and covered with the straw. It lay there for some two months, when, on preparing to thresh off my crop, I overhauled it, and found it literally alive with weevils. We put it through the fan, and gathered them out the screen box, and swept them off the floor by the quart, and destroyed them. Now for the mow: To the best of my knowledge, there was not one handful destroyed by them; indeed, I do not know that it was touched. We threshed it, cleansed it through the fan, and garnered it, I think, without seeing a single weevil, or weevil-eaten grain. For further proof of the matter, this year I did nearly the same thing, only putting the shattered wheat in a cask, and letting it stand on the floor. Last week, on examining it, I found a few weevils in it; but it was very little injured. I set it away, and proceeded to thresh a part of the other, about one hundred dozens, amongst which I have to find the first weevil; and further, the garner in which there had been a number of them is now entirely clear, after having the wheat thus salted in it. The quantity of salt used was about a peck to one hundred dozen, sprinkled over each cart-load of about ten to twelve dozens. C. L.

UPPER CHICHESTER, DELAWARE CO., PA., 1849.

MILK-HOUSES.

Friend Solon Robinson, Crown Point, Pa., well known as an agricultural tourist, and a gentleman of extensive observation, from whom we have occasionally had friendly calls this season, gives the following plan for a milk-house, which we think far preferable to sinking them deep in the earth, which prevents the admission of pure air, and a free circulation:—

Seeing your article in No. 19, reminds me to tell you how I built my milk-house.

It is of brick, ten feet by eighteen, two stories high, built upon the same level as the dwelling, and near by. The two sides and one end are banked up with earth, and sodded from the top of the first story back on a gradual slope.

A small entry is made at one end, so as to give double doors, and a double glass window is arranged at the other end, so as to open and give ventilation. A ventilator, about one foot square, should go from the centre of the ceiling out through the roof.

The joists are plastered, and support a false floor, composed of boards, and four inches of clay between that and the floor of the room above, which room is used for a smoke-house, the smoke being conducted from the outside.

The floor of the milk-room is of brick—stone would be better. This room is cool in summer, and warm enough for a cellar in latitude $41\frac{1}{2}^{\circ}$ in winter.

This is a very cheap and very good plan to make a milk-house in any country.

SHOEING HORSES.

At a meeting of the Royal Agricultural Society of England, some time since, Professor Sewal remarked that he frequently found old horses shod with a layer of leather, forming an artificial sole, between the hoof and the shoe, recovering from severe affections of the hoof,—such, for instance, as contraction, brittleness, and cracks, or even diseases of the foot itself, as thrushes, corns, cankers, etc.,—and permanently regain their original elasticity and firmness.—*Selwood.*

ACKNOWLEDGMENTS.

From Colonel Charles Hannaford, Cape Elizabeth, Me., a box of apples, called the *Pearmain*. It is of medial size; roundish-flat, very full in the eye and cavity; stem rather short, and very slender; rich yellow ground, striped and blended with brilliant red, which nearly covers the surface, full in the sun; flesh white, very tender, crisp, juicy, mild, pleasant, and of a fine pearmain flavor, resembling the *Mag-nolia* in flavor. Colonel H. remarks that these apples are from the native tree on his place, which is about eighty years old; that formerly the fruit was larger and finer; and that this variety is the more valuable for bearing in odd years, when fruit is scarce, according to our theory, which he regards as correct. As this variety is a good grower and bearer, the fruit of good size on vigorous trees, very fair and handsome, of fine quality for eating or cooking, it is worthy of experiment, as it promises to be an excellent kind. Ripe during September; in this climate, about from the middle of August to the middle of September.

Of John Washburn, Plymouth, a seedling quince, which he raised from the Apple quince. It is very large, remarkably fair and smooth, similar in texture and appearance to the Apple quince, but rather firmer flesh; and it ripens about a fortnight later, but earlier than the Pear quince. It is a very promising variety; and as it is nameless, we would propose to call it the *Washburn Apple* quince. Jalousie Fontenay de Vendee pears, very fair, and good quality, a new and promising foreign variety. Sieulle pears, large and fair, but too hard for present use. Charter Oak grape. We heard that this grape was cultivated about Hartford, Ct., and that it was a valuable kind. We requested Egbert Cowles, of Farmington, Ct., president of Hartford County Horticultural Society, to give us information on it, supposing that it was within his *jurisdiction*. He writes that Dr. Grant, a leading horticulturist of Hartford, states that it was a wild vine, transplanted into the Wyley estate, (Charter Oak place,) where it bore large fruit of inferior quality, which he regards as not worth cultivating. The quality of the fruit from Mr. W. confirms the opinion of Dr. G. It is one of the poorest of wild grapes, and about the same as the famous Mammoth grape, cultivated about Lowell. We have also had the same from Springfield. In our last, under the head of acknowledgments, for *Monmouth* read *Mammoth*.

Of John Cummings, Woburn, several seedling peaches; one a large white peach with a red blush, and white flush, freestone, of excellent quality, ripens October 1. Two varieties of clingstone, excellent for preserving; one of medial size, the last of September; the other quite large, and ripening the first of October.

Of Amos Tilton, East Kingston, N. H., a large, beautiful seedling peach, clingstone, fine for preserves. This peach is about half nectarine, which is a variety of the peach, as the nectarine is raised from peach stones, and the reverse. Fine pears of the

Fulton, and two varieties not yet ripe, which are probably new native kinds. One specimen, of tolerably good size, grew on wood of this season's growth. We have noticed other similar cases this year. Also from his neighbor, Nathaniel Batchelder, native grapes, very large and beautiful, and of a fine quality for the wild species.

From Andrew Lackey, Jr., Marblehead, very large and fine St. Ghislain pears. When at Mr. L.'s, in August, we noticed this tree, on the quince, trained against the house, growing with great vigor, and well loaded with the finest looking fruit that we ever saw of this variety. On the pear, this variety is not profitable for the market for want of size. But for the amateur it is one of the finest of pears. Also very fine specimens of Belle Luerative pears, and Coe's Golden Drop plums, first rate fruits; but they both generally need rather a warm location and light soil for this climate.

Chelmsford Mammoth peach. We noticed this in our last number. We have since seen Mr. Holden, and we find that he calls his peach the *Chelmsford Mammoth*, not the *Early Chelmsford*, as we supposed. Therefore the names of this and the *Early Chelmsford* described in the American Fruit Book, are distinct, and so is the fruit. We have a letter from Joseph Warren, Jr., Chelmsford, confirming what Mr. Holden has said as to these fruits, and recommending no alteration of names, as they are distinct. We would say to him that his letter came too late for peach buds. The apple scions will be furnished in due time.

From Isaac Steere, Burrilville, R. I., Blackstone grapes. Tolerably good for wild grapes, but no better than many other varieties. Whether these are the same as those usually cultivated under this name, or not, we cannot say; but we have seen at exhibitions the same fruit, in appearance, with this mark on them. Also two other varieties. The purple are about as good as the Blackstone, but different.

Of Norris Collins, Watertown, Watertown pear. This is described in the American Fruit Book. A further acquaintance gives us a still higher opinion of this fruit. It is luscious and excellent, ranking as first rate when grown well exposed to the sun. Its being a native, and very hardy, vigorous, and productive, are strong recommendations in its favor. As the dealer who purchased this fruit remarked that it would not sell well under its present indefinite name, and some others desired it changed, we suggest that it be called the *Collins* pear. It originated in the garden of Joseph Cole, Watertown, now owned by Mr. Collins.

From Ezekiel Johnson, Woburn, native grapes, tolerably good, grown upon a vine that has borne well for twenty-five years without cultivation, still standing in its native spot. It ripens about the first of September.

From S. Scudder, Dorchester, apples and pears for names. The apples are the Spice apple, called in some places *Haggood's Spice*. It is remarkably handsome, and of first-rate quality for cooking, but too

acid for the dessert. The pear belongs to the Bonchretien family, and is, we believe, what is called the *Fall Bonchretien*. The size is good, and the fruit very fair and handsome, but dry and inferior in quality. Also peaches, which are nectarines of fine quality; and as they are clingstones, they appear well adapted for preserving.

From Elisha Bunce, Westford, Isabella grapes, well ripened and fine the last week in September, which is very early for this variety, in this cool, late season.

NOTICES OF PUBLICATIONS.

THE AMERICAN FLORA, by Dr. Strong, is among the most interesting and useful publications. The numerous painted illustrations are very beautiful, and remarkably true to nature. Green & Spencer, New York.

THE ILLUSTRATED NATURAL HISTORY, by the same editor and publishers as the above, is embellished by engravings of life-like appearance, and the descriptions of animals and their habits furnish, to both young and old, the most pleasing and useful instruction.

CHASE'S POCKET ALMANAC, AND MAP OF BOSTON, is a very convenient little *pocket book*.

FRIENDSHIP.

Like a star in the sky
When all others have set,
As the sun in his course
While the day lingers yet,
And his light is not hid
In his pathway on high,
But shines bright and pure
From his throne in the sky. —

Thus firm in attachment,
When all others desert,
Thus pure in the light
Which it sheds on the heart,
Is the beacon of friendship,
Which brightens the way
Of life's checkered path
With a heavenly ray.

Rural Repository.

LONG SINCE. — A lady, who had been very submissive before marriage, was observed by a friend to use her tongue pretty freely after. "There was a time I almost imagined she had none." "Yes," said the husband, with a sigh, "but it is very long since."

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, OCTOBER 27, 1849.

NO. 23.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

AGRICULTURAL AND HORTICULTURAL EXHIBITIONS.

From the increase of these societies, and the increasing zeal and intelligence in them, the fine exhibitions in different sections, the large number in attendance eagerly learning from every available advantage, and the talent and character that give them support and encouragement, it is evident that a great deal is doing to make improvements in all the industrial branches, and that these associations are among the most effective means of accomplishing so desirable an object.

Within a few years, many new societies have been formed; and, though yet in their infancy, they are vying with older associations in their shows, in the intelligence of their officers and members, and in their wide-spread and happy influence on the public mind. May this noble emulation, in a worthy cause, speed on until every desert place in our beloved country shall rejoice under the gladdening influence of skilful cultivation.

POWER OF INSECTS.

It is truly astonishing that the power of insects over the affairs of man exceeds that of the most formidable animals of sea or land. In some cases, the crops of the farmer are entirely cut off by minute insects, and the comfort and happiness of man is often destroyed by these mischievous enemies. Sometimes a single mosquito will disturb his repose, and for hours elude his most violent attacks.

We are led to make these remarks from a notice in the Michigan Farmer of the devastation of the army worm, which appeared the past summer. It made sad havoc on one farm near Fort Huron, on Black River. They marched in solid phalanx, through field after field, devouring every thing in their way. Where a crop of five thousand bushels of oats was expected, there will not be a single bushel. One tenant was driven from his house, and the owner, on the opposite side of the river, was able to keep possession of his dwelling only by attacking them on the bridge, and sweeping them into the river.

PROTECTION OF FRUIT TREES.

Mr. Levi Burt, of Walpole, N. H., says, that he has succeeded in preventing the ascent of bugs and worms upon fruit trees by surrounding the tree with a leaden trough, and then filling the trough with oil. This mode has been tried considerably in some sections of the country, and it is generally successful; but it is very expensive, and the troughs, with the stuffing between them and the tree, to stop the passage of insects, is injurious to the tree.

A more economical mode is the application to each tree of pieces of board forming a circle around it, extending a few inches from the trunk; and to the smooth surface underneath apply tar, melted India rubber, oil, varnish, or any other offensive, slippery, or viscid substance, that will prevent the passage of insects. This substance will not be exposed to rain or sun, and will be more durable in its effects than any application in an exposed situation.

BRISTOL CATTLE SHOW.

This festival was held at Taunton, the 11th inst. We copy the following general remarks on this show from the Bristol County Free Democrat:—

The morning was unpropitious, the rain pouring down in torrents from early dawn to nine o'clock in the forenoon, when the clouds broke away, and the afternoon was warm and pleasant. The rain, however, had an unfavorable effect on the attendance of strangers during the day; still there was a fair collection of the yeomanry of the county present on the occasion.

The ploughing match was delayed an hour in the morning on account of the storm, but the number of entries was quite large. The drawing was performed as usual in a very creditable manner, notwithstanding the unfavorable circumstances of the rain and muddy streets.

The stock of fat cattle, horses, swine, poultry, &c., was not large, but equal in quality to many former years. Most of the pens were occupied.

At the Town Hall, the exhibition of fruits and fancy articles was decidedly superior, in our opinion, to any previous one. The large hall was well stored with manufactured articles, agricultural implements, embroidery and other products of female industry; butter, cheese, honey, and other agricultural products.

CATTLE SHOW AT NORTHAMPTON.

We copy from the Hampshire Gazette a short account of this exhibition. At another time, we shall refer to the reports of some committees.

The cattle show and fair of the Hampshire, Franklin, and Hampden Agricultural Society was held in this town, on Wednesday and Thursday last. On account of the threatening aspect of the weather, or for some other reason, the crowd of people did not appear to be quite so large as usual; but nevertheless, our streets were thronged, and oyster peddlers and auctioneers were as numerous and as noisy as ever.

The show of cattle, in respect to numbers, was inferior to that of many former years; but the quality of the animals would not suffer in comparison with those of any preceding exhibition. There were but two town teams — one from Easthampton, of twenty-six yoke, and one from South Hadley, of sixteen yoke. Both took the highest premium — the one for the greater number, and the other for the better quality. Of swine there never has been a better exhibition. The sow and ten pigs, of the Suffolk breed, owned by Dr. Bardwell, of Whately, elicited universal admiration.

The exhibition at the Town Hall, though inferior in some respects, was, as a whole, quite as good, perhaps, as on former years. The show of fruits was never before equalled. Through the efforts of the Northampton Horticultural Club, the variety and number of specimens of apples, pears, grapes, etc., presented, would have done honor to any similar exhibition, in the best fruit-growing districts. There was also a fine display of dahlias, for which the public were indebted, as the largest contributor, to Mrs. Thomas Bridgman, of the Eagle Paper Mill Village. The show of vegetables was small, and wholly unworthy this rich valley.

The specimens of needle-work were not so numerous as usual, but there were some which displayed much taste and skill. In the more substantial articles, however, there appeared to be no abatement of female industry. The rolls of domestic flannel and frocking showed that the distaff and the loom had not been idle, and their soft, flexible texture inspired a sensation of comfort.

The ploughing match, on Wednesday afternoon, was quite spirited. It took place on Venture's field. Eighteen competitors entered the lists — seventeen horse teams and one ox-team. The ploughing was all good, and the ease with which it was done commanded the admiration of the numerous spectators who surrounded the field.

The show of horses was much less than it would have been on a fair day. Forty entries were made, but not all the horses entered were present for inspection. Those present were of a good quality, and elicited the high commendation of the committee.

The address by Professor John P. Norton was unusually interesting, and well adapted to the wants of the farming community.

NEWLAND'S STRAWBERRY.

On p. 242, we have given some account of this fruit. Since we published that article, we have had many reports confirming the statements which we made. It appears that Newland played off a gross imposition; and we are astonished that cultivators should be so duped by the incredible statements of a stranger, as to run largely into the purchase of an unknown article, when half a dozen

plants would have been sufficient for an experiment. This humbug should be classed with those of the Rohan potato, and Chinese Tree corn. It must be a large state that produces so many famous things. We copy the following item from the report of the Fruit Committee of the Worcester Horticultural Society, in June last: —

"Gardiner Paine; Hovey's Seedling, Alpine, and a specimen of 'Newland's celebrated Mammoth Alpine' strawberries. The only celebrity of the latter consists in the number of those who have been imposed upon by it. It is either the old Alpine, or a seedling from it, in no respect differing from its parent."

TILE DRAINING.

We hope that tile draining will be tried in different sections of the country, where there is an abundance of clay, and a scarcity of stones. With good machines, tiles can be made at a very small expense, and the making of tile drains requires but little labor. In England, this business is carried on to a great extent, and with excellent success. On some farms a great many miles of tile drains are laid, and the improvement of the land, as shown by superior crops, is paying a large profit on the capital invested. We copy the following article, on this subject, from the Ohio Cultivator: —

Under-draining with the tile is doing wonders for every one who tries the experiment. John Johnston, whose great farm management you noticed in your last Cultivator, has already received from Mr. Whartenby, the master tile-maker here, about forty thousand two and a half inch tile, more than three thousand rods; his tile machine was imported from England by the enterprising president of our Agricultural Society, John Delafield. It is worked by two men, and makes daily about fifteen hundred tiles, fourteen inches long; they are afterwards dried and baked; the current price at the kiln is ten dollars per thousand. Last spring, several gentlemen called to see Mr. Johnston's farm; he purposely omitted to tell them which wheat field was under-drained, and, the better to elicit their surprise, he led them over one field, where the wet, heavy soil adhered to their boots, much to their annoyance; then, crossing the fence to another wheat field of like soil and formation, they one and all uttered their surprise at its dry and mellow surface. "Gentlemen," exclaimed Mr. J., "you are on my tile." They are laid from twenty to thirty inches deep; a little straw is placed over the joints as they are covered: although the edges of the tile are laid on the bottom of the ditch, experience proves that they sink no deeper into the soil. Soil thus drained possesses a sort of capillary attraction, and power to retain a due equilibrium of moisture, during the most trying drought.

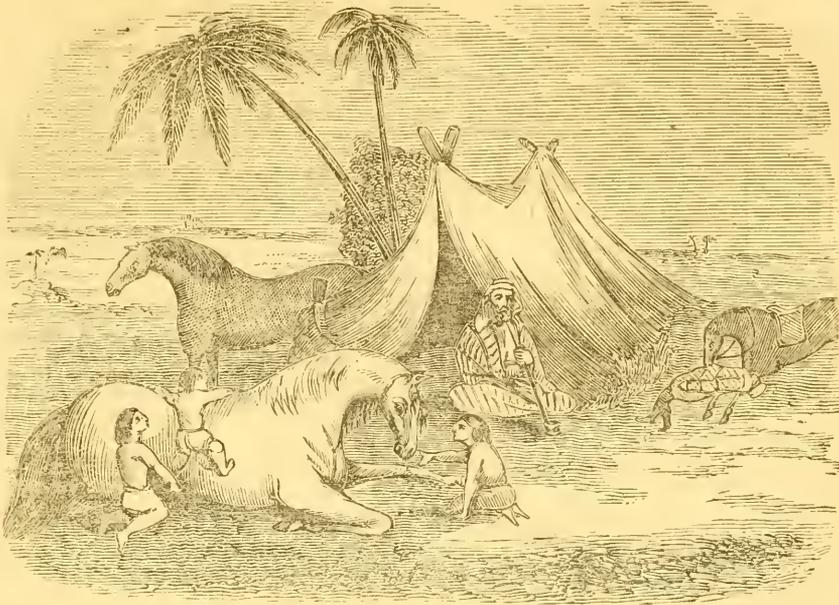
Very truly yours,

SAMUEL WILLIAMS.

WATERLOO, N. Y., August, 1849.

PULSE OF VARIOUS ANIMALS.

The pulse of several of our domestic animals, as given by Vatel in his "Veterinary Pathology," is nearly as follows: Horse, from 32 to 38 pulsations per minute; ox or cow, 35 to 42; ass, 48 to 54; sheep, 70 to 79; goat, 72 to 76; dog, 90 to 100; cat, 110 to 120; rabbit, 120; Guinea pig, 140; duck, 136; hen, 140.



THE ARABIAN HORSE.

The Arabian horse is justly celebrated for his swiftness and agility, and in power of endurance he has no superior; but his most distinguishing characteristics are sagacity and docility. He is the companion of his master, and fond associate of his children, whom he allows to play around, and climb upon him; and he moves about in the tent among them with the greatest caution. Our cut represents the intimate connection existing between an Arabian family and their kind and faithful horses. And the Arab deserves a compliment for his tender care and affectionate regard for his horse, as, in his kind treatment, he sets a noble example worthy of the attention of the civilized world.

The following anecdote illustrates the sagacity of the Arabian horse, as well as his ardent affection for his master. A part of the scene is represented above.

"An Arab chief, with his tribe, had attacked, in the night, a caravan of Damas, and plundered it: when loaded with their spoil, however, the robbers were overtaken on their return by some horsemen of the pacha of Acre, who killed several, and bound the remainder with cords. In this state of bondage they brought one of the prisoners, named Abou el Marek, to Acre, and laid him, bound hand and foot, wounded as he was, at the entrance to their tent, as they slept during the night. Kept awake by the pain of his wounds, the Arab heard his horse's neigh at a little distance, and being desirous to see, for the last time, the companion of his life, he dragged himself, bound as he was, to the horse, which was picketed at a little distance. 'Poor friend,' says he, 'what will you do among the Turks? You will be shut up under the roof of a khan, with the horses of a pacha or an aga; no longer will the women of the tent bring you barley, camel's milk, or dourra, in the hollow of their hand; no longer will you gallop free as the wind of Egypt in the desert; no longer

will you cleave with your bosom the waters of the Jordan, which cool your sides, as pure as the foam of your lips. If I am to be a slave, at least may you go free. Go: return to our tent, which you know so well; tell my wife that Abou el Marek will return no more; but put your head still into the folds of the tent, and lick the hands of my beloved children.' With these words, as his hands were tied, he undid with his teeth the fetters which held the courser bound, and set him at liberty; but the noble animal, on recovering his freedom, instead of bounding away to the desert, bent his head over his master, and, seeing him in fetters and on the ground, took his clothes gently in his teeth, lifted him up, and set off at full speed for home. Without ever resting, he made straight for the distant but well-known tent in the mountains of Arabia. He arrived there in safety, and laid his master safe down at the feet of his wife and children, and immediately dropped down dead with fatigue. The whole tribe mourned him; the poets celebrated his fidelity; and his name is still constantly in the mouths of the Arabs of Jericho."

In 1842, a fine Arabian horse, of pure blood, was presented by the sultan of Muscat to David Pingree, Esq., of Salem, as a mark of distinction and particular regard, selected as one of the best from a stud of one hundred horses. Hon. Richard P. Waters, late United States consul at Zanzibar, who shipped said horse by order of his highness the sultan, remarks as follows of this race:—

"It is well known that all the superior properties of the Barbary, the Andalusian, and the English blood horse are derived from the Arabian. This blood of horses have greater powers of endurance, better wind, or *bottom*, as it is technically called, than any other in the world—beside more ease of motion, activity, and grace of action.

"It is unnecessary to recommend him to those who

are fond of fine horses, as highly worthy of their attention.
RICHARD P. WATERS."

This Arabian horse "Imaun," or "Pingree horse," as he is often called, was purchased of Mr. Pingree, by Mr. M. L. Hayes, of Farmington, N. H., where he has been kept this season, and where it is intended to keep him in future, for the improvement of stock. He should claim the attention of farmers in that region, who would improve their race of horses.

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For the New England Farmer.

BOOKS.

Books! I dearly love them. It is a source of gratitude with me that my mind was early imbued with a taste for reading. Time cannot hang heavily on my hands, or pass tediously away, with an interesting book for a companion; and the mind may experience a pure delight when absorbed in the enchanting page. History acquaints us with the scenes of other days — the deeds of men who have long since left the earth. Their actions pass in review before us; we forget the lapse of time. We may not be able to travel over the globe; our lives may pass in humble obscurity; yet through the medium of books we may visit far off-lands; we may gaze on their lofty mountains and sunny vales, their majestic forests and mighty streams. We become acquainted with the appearance, character, and habits of people on the opposite side of the globe, and our minds are stored with information which proves a source of much pleasure. While engaged in labor, we may meditate on what we have read, and communicate it to others. I sincerely pity the person who has no relish for books. He loses much that is valuable. His mind is necessarily contracted, his views limited, and his conversation confined to subjects within the range of his own small experience. The stores of knowledge which might be so easily gained, and which would render him a more useful and happy man, are neglected and despised. In a country like this, where reading matter is so abundant, it is surely the duty of every parent to strive to inspire their children with a love for judicious books; and if the habit of reading is early formed, it will seldom be relinquished through life. E.

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For the New England Farmer.

HORTICULTURAL EXHIBITIONS.

MR. EDITOR: The exhibitions of the various horticultural societies are the means of diffusing much valuable information with regard to fruits, as well as widely disseminating the best varieties for cultivation. At these shows are displayed the finest kinds collected from various sections, duly arranged and labelled for the inspection of the public; and here any one may select a list for himself, with the variety before him for examination, which is far better than to propagate those he has never seen. Information in regard to the productiveness and quality of the several kinds may be obtained from the society's reports, together with much other matter useful to the grower of fruit.

The many new and excellent kinds, cultivated at the present day, and the vast amount of fruit raised for the home and foreign market, may be in a great measure attributed to the labors of the various societies for the promotion of horticulture. New orchards are rising up on every hand, and old ones are re-grafted with new and superior varieties, in order to produce fruit which will meet the demands of the public. The very best kinds should be selected in

planting new orchards, and it requires some observation and experience to decide which are best among so many which are good. Many standard varieties are well known to nearly all. Should any one be unacquainted with the subject, there are those to whom he can apply for the desired information.

Much benefit might be derived from exhibitions of fruit in the several towns. A day set apart for the purpose, in autumn, would doubtless do much to promote the cause of horticulture, and would be attended with but trifling expense. It might be rendered a kind of holiday, in which all who pleased could participate with pleasure and profit; and this is more than we can say of some public days.

Many new and valuable varieties of fruit would be brought into notice, no doubt, by exhibitions of this kind, which otherwise might remain in obscurity — many fruits of first-rate excellence, which would never find their way to the state or county shows. Scions might be exchanged, by means of these exhibitions, and the best fruits become widely diffused. Many would attend in their own town who would not at a greater distance; and all, both young and old, as well as those of every political party or religious sect, could join in harmony in promoting a cause worthy the attention of all.

O. V. HILLS.

EDITORIAL REMARKS. — The suggestion of our friend is a good one; and we hope that arrangements will be made to have town exhibitions of fruit, as they will not only have an excellent effect in bringing forward many valuable kinds of fruits, which otherwise may be confined to their native spot, and finally decay, and be lost forever; but it would excite emulation, and induce thousands to engage in this delightful business who have never dreamed of doing any thing in the fruit line beyond the cultivation of a few crabbed apples.

In our boyhood, when budding and grafting were not practised in the circle of our observation, we were acquainted with some highly-valuable fruits, equal to the finest in the country; but those fine kinds were not propagated, and the trees died; or, from their being too numerous, or on good tillage land, they were cut down as cumberers of the ground, and they are lost — past without recall.

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For the New England Farmer.

HENS.

MR. EDITOR: I have been led, by the many flattering statements in your valuable sheet, to increase my flock of laying hens; but have thus far been sadly disappointed in the result. My hens have been confined to the roost and yard the whole season, have been regularly fed with all the different kinds of grain, as barley, buckwheat, corn, and oats, dough from corn meal, boiled potatoes, squash, &c., with green stuff from the garden, as lettuce, cabbage, beet, grass, &c., and yet the returns have not been equal to the expenditure. I never have been able to collect, as a general result, a dozen of eggs per day from my flock, which consists of about thirty hens, all told. A line or two more in reference to the kinds of fowls kept, and the diseases which have occurred among them, with my conclusions on the subject, will relieve your patience.

I commenced, last fall, to select, from the flocks of others, pullets of the Black pheasant breed, (called *everlasting layers*;) the Bolton Grays, and other names of the non-sitting breed; and well have they sustained their name, for they have scarcely sat long

enough to lay. In addition, I have from time to time selected the best looking native breeds, having regard to their laying propensities, to use for sitters; these I consider the most hardy, and on the whole the most profitable. Individuals of my flock have been attacked with weakness of the back and limbs, contraction of the cords of the feet, with a general drooping; and although removed from the flock, scarce ever recover. I have several fine cocks, three quarters grown, now suffering under this disease: they are now sitting on their haunches, with their claws grasped close together like a man's fist doubled up; if approached kindly, will commence walking on their feet doubled up, and continue so until they sit again; if aroused by a sudden fright, by great effort can expand the claws, and walk on them, contracting again when the fright subsides. Sometimes one limb is attacked, but generally both: these are the first symptoms, which are followed by general weakness and loss of appetite and death. My medicine has been first some cathartic, kernels of black pepper, assafetida, &c. The result thus far in all cases has been death. Mr. Editor, forgive me for having been thus particular, if not tedious, in the hope that you or some other reader of your sheet would prescribe some known remedy for this disease. I come now to the following conclusion — that, in order to keep "everlasting layers" everlastingly laying, they must be everlastingly rambling about where they choose; in other words, they want, and must have their liberty. This with me they cannot, nor shall not have, from the middle of April to the middle of October: therefore to me they are unprofitable; and I shall on the 1st day of April next reduce my flock to twelve hens and a protector, or abandon the whole, unless some one of your contributors, in answer to the inquiries of J. S. of Mansfield, shall introduce me to a breed that love confinement, and that lay equally as well when restricted and in other respects well provided for.

Respectfully yours,

A FRIEND.

PROVIDENCE, Sept. 1849.

EDITORIAL REMARKS. — Hens running at large are generally more healthy, and lay better, than those confined to a yard or house; yet, under the best of management, most hens will lay well when confined to rather narrow limits. There are occasionally exceptions to this general law, which cannot always be accounted for.

Fresh earth, containing a good share of gravel, should be furnished to hens, and old lime mortar, pounded or ground oyster shells or bones should be kept by them. Hens that have been raised within narrow limits will bear confinement much better than those that have been accustomed to ramble. They will be contented, having no disposition to enjoy that liberty which they never knew.

We have raised hens in a small yard, and kept them confined, and they have laid remarkably well, showing no disposition to ramble; but, on the contrary, when the gate was left open, and they had leisurely strolled away a short distance, at the ringing of a bell or other noise, they would run home with affright. Some breeds of hens are more quiet and better adapted, naturally, to confinement than others; yet much depends on education.

A friend once gave us an account of the produce of six Poland Top Knot hens, for one year. It was unusually large — over one hundred and fifty eggs to each fowl. In the month of June, the average to

each hen was twenty-three eggs. These hens were limited to a very small yard.

Hens are liable to many diseases, when they are confined; and it is as much trouble to doctor a hen as it is to doctor a cow or an ox, and in either case the bill for medical aid would generally far exceed the value of a hen. Again, the diseases of hens are difficult to describe, and to prescribe for. There should be great care to prevent diseases, as they often prove fatal.

Hens generate diseases, and are liable to great injury from lice, where they roost in close houses in warm weather, while those running at large and roosting in the open air are healthy. The better way is to let them roost out door in summer, with only a covering over them, to keep off the rain.

GOOD FARMING.

Mr. John Johnston, near Geneva, has on his farm a cow, which probably gives more milk than any cow in the United States. Through the month of June, 1848, she gave forty-two quarts per day; and for five days she gave forty-five quarts per day; which is probably without any parallel in this country. From the cream only, they made fourteen and a half pounds of butter per week. Had they churned from the milk, they would have got more butter. The cow was milked three times a day. The only feed she got was grass in the pasture. She is of a roan color, half Durham and half native breed, and is seven years old. She is finely formed, and a handsome animal. She was raised by Mr. Johnston, who says she will be a good cow at twelve years or more. He has eight cows in his pasture of clover up to their knees, all fine animals, which it is a pleasure to look at.

Mr. Johnston is a Scotch farmer and grazier of great celebrity, and sells many fat cattle for New York. He has a farm of three hundred and six acres, in one compact body of land, on the east side of Seneca Lake, about three miles from Geneva, in fields of eight to eighteen acres, all in the best condition. One field of eighteen acres of Indian corn, last year, yielded eighty-three bushels of shelled corn per acre. One field of eight acres yielded ninety-one bushels and forty-five pounds of corn per acre; and a field of wheat, of sixteen acres, yielded forty-five bushels per acre. Mr. Johnston drains his land by underground draining, and has some miles of earthen pipes, (made at Waterloo,) which he has been laying the last eight years. From the rich feed in his pastures, the cattle are all in the best condition. He does not feed his grass down to the ground. This he calls bad farming, as the roots get scorched by the summer drought, and frozen in winter. But a covering of grass protects the roots from both, and also keeps the cattle in good condition. He has large barns, and yards and sheds for the cattle. In the yards, the cattle make large quantities of manure — from wheat straw. He carts no mud from meadows into his barn-yard. He puts the manure on the land in the fall, spreading and ploughing it in at once, and not letting it remain for the sun and wind to dry up.

He observed to the writer of this, that he never saw land too highly manured, but he had seen much land too little manured. Land will always give a return for all that is put upon it. The best proof of this is, that in the last twenty years, he has brought his farm from what was called *worm-out land*, to its present superior condition, not by borrowed capital, but solely by the proceeds of the farm itself, obtained

by his practical knowledge of good farming, combined with industry and economy.

A TRAVELLER.

— *Journal of Commerce.*

DIARRHOEA IN COLTS.

As soon as the disease is evident, the mare and colt must be taken from the pasture, if they were at grass, and their treatment must be different, according to the degree of appetite retained by the colt: if he eats or sucks heartily, give him cow's milk boiled with a little flour, and with warm injections of mullein, flaxseed tea, or slippery elm; if, on the contrary, the animal is without appetite, it is a sign that the evacuation is dangerous, and ought to be checked: give something more than a quarter of an ounce of assafetida diluted in one of the above teas, which he must be made to swallow milk-warm; besides which, he must have injections morning and evening until the disease seems to be checked; then suppress the evening remedies, and suppress them entirely, as soon as the colt is evidently better. It is more prudent to keep the mare out of pasture, and feed her on dry hay, &c. A careful attendant on the colt will best know whether to continue the remedies or not. Mind that the mother's milk has a great influence on the colt. — *Kentucky Farmer.*

PLOUGHING.

The committee on ploughing, of the Bristol Agricultural Society, in their report at the late cattle show, make the following judicious remarks: —

The committee on ploughing are unwilling to commend their report without first making an effort to impress upon the minds of members of the society, that our object in coming together at this time, and at each and all our meetings, is to call into action our latent energies, to excite us to greater industry, and to wake up in our minds a spirit of inquiry into the best mode of doing the most labor, and doing it in the best manner, with the least or smallest means, and which will be more useful than a few paltry dollars and cents. The importance and utility of ploughing matches may be, yea, have been questioned by some persons; but as they are generally considered the most exciting and interesting part of the show, very few are found who discourage them, and no one who has made himself well and thoroughly acquainted with the subject will speak lightly of them.

All persons who are much advanced in life can well remember when no one thought of ploughing sward ground without four good oxen; and it was then often deemed necessary to add a horse; and a team of this size would always require, at least, one experienced driver, and often a boy in addition, to lead or ride the horse; but now the work is better done (as we have this day had abundant evidence) with one yoke of oxen and one hand. And this state of things has, in a great measure, been brought about by ploughing matches, which has led directly to the better training of cattle, and the general emulation excited by them has also led to great improvements in ploughs, as well as in the use of them.

Agriculturists should never forget that the finest and impalpable parts of the soil are the principal, if not the only actual portions in the vegetable growth; hence the necessity and importance of a thorough pulverizing; and I believe that the modern plough inverts the ground as well, if not better than any other instrument whatever.

The depth of ploughing is a subject about which

men differ in opinion; and this depends much, as your committee think, upon the character and depth of the arable soil. But I suppose all will agree, that when the soil is loosened deep, it will cause the crops to be better guarded against drought, and also against a superabundance of rain. Honor is generally given to the victors in the conflict. But I have often thought of the vast difference to the world between victories obtained upon the battle-field, and those obtained upon the ploughing-field — the one sending weeping, distress, and death, while the other blesses the race with plenty, happiness, joy, and life. If mother Earth yielded her productions spontaneously to the inhabitants of the garden of Eden, she is not so indulgent now; for she must needs be continually stirred and vexed by the plough and the hand of cultivation, or her children will want.

The competitors have contended earnestly to-day, but fairly, manfully, and peaceably for the prize, bringing vividly to mind that passage of sacred writ, which predicts that swords shall be beat into ploughshares.

The committee suggest that lands somewhat unsubdued should always be selected for trial; otherwise it would be only to see who could do an easy thing best; and the lands this day selected were tolerably well suited to the purpose.

AGRICULTURAL EXPERIMENTS.

That distinguished veteran farmer, Rev. Morrill Allen, in his report for the committee on improvements, of the Plymouth Agricultural Society, makes the following remarks on experiments: —

Many practical farmers take, as their surest guides in new processes, the results of experiments. This is well when it leads to no wrong views of the importance and uses of theory. The confinement of attention exclusively to practices established by custom would place an effectual obstacle to the progress of improvement. With a numerous class of farmers there is danger of falling into these confined views, and consequently neglect in the employment of necessary means of advancement. The deductions of scientific research do sometimes disappoint in their application to practice. It must be so, because some of the laws of vegetable life are beyond human reach; and hence the foundation of the cautions so often given not to practise extensively on any theory till its correctness has been proved in experience. If science will not at once and with certainty teach what to do, if the lessons of it must be subjected to the test of experience, the conclusion is easily formed, that it is of little or no importance in the art of agriculture, that we may as well proceed without its lessons, as labor in the attainment of them. These conclusions would be not less unjust than denunciations of theory in other occupations. Take for illustration the medical art: let the physician practise exclusively on theory, without any regard to the results of experience, and he would be very certain to kill the largest half of his patients. We do not on this account think science of little or no importance to the physician; we should esteem it the height of imprudence to commit the management of the body under disease to a man who, rejecting all teachings of science, should ground all his prescriptions exclusively on personal experience of the character and progress of disease.

All theories in the art of agriculture have been formed from observation and experience. The application of them in practice will be greatly affected by those numerous changes which are taking place in the composition of soils and the variations in seasons. What is the best practice in a particular location and

climate, science alone cannot show us; and without its aids, experiments would be little more than repetitions of processes, which altered circumstances should long since have rendered obsolete. Experiments worthy of any imitation, and worth recording, must embrace philosophical principles: the experimenter may know nothing of system, but his attention, care, and study have conducted him to conclusions strictly philosophical.

It is from carefully conducted experiments we anticipate the most important results in stimulating inquiry, and giving such new directions to labors as may conduce to general prosperity. We propose subjects for experiments, which every farmer in a measure understands already, but hope all who engage in the processes will avail themselves of every attainable assistance in extending their knowledge, that with clearer and more comprehensive views they may labor more efficiently, and realize greater gains. We wish to place motives before them to seek new light, and unite, as opportunities are presented, science with practice.

WAGONS AND CARTS.

A farmer in England, named Edward B. Liddington, has produced a prize essay on the comparative merits of wagons and carts, which should arrest the attention of our farmers: for if he is right, our farmers, in general, are wrong. After five years' experience with wagons, and nearly the same with one-horse carts, on a farm of one hundred and seventy acres of arable and eighty acres of pasture, he came to the conclusion that the carts were of the greatest advantage. As our farmers all use wagons, let them pay some attention to his statement. He says, "I have no light ploughing land, nor have I more than twenty or thirty acres of very heavy land. I will, therefore, relate my actual experience. In the employment of wagons and the old broad-wheeled dung-carts, I required one wagon, one cart, and three horses to every fifty acres of arable land. I also kept a light cart for general purposes. Now that I am employing carts, I find that I get through my work much more easily with two horses and two carts to fifty acres."

In the calculation of items, his saving was nearly four dollars on the cultivation of one acre, in the year. Again he says, it is admitted that one horse attached to a given weight will move it more easily than two horses attached to double that weight. This arises not only from the advantage gained by having all the power of draught close to the work, but also all the power applied at the same moment, which is almost impossible where two or more horses, having different wills and steps, are attached to the weight; and for the same reason, one horse will travel more quickly.

When a cart is filled, there is no delay in attaching the trace-horses, during which operation the one-horse would be two hundred yards on the road. I know this might be done more quickly by having men ready to change the horses, as in the practice of opposition coaches; but I am speaking of the matter-of-fact working of the system. Then again, when the load is deposited, the one horse turns in much less time than the two or three. These facts are too self-evident to admit of contradiction; indeed, I believe the economy of carting manure with one-horse carts is generally allowed; but the employment of them in harvesting is much objected to. In this respect, however, I find them equally expeditious and economical. My actual experience is, that three carts, with the harvest frames attached, will convey as much hay or corn in the straw as two wagons, and that they are bound with the ropes in the same

time; therefore no time is lost in binding. They are easier to pitch into than wagons, and not more difficult to unload; and all the advantages are gained of speed in travelling.

My attention was first drawn seriously to the subject from hiring a man to draw some stones for draining. He came with a horse only fourteen hands high and a small cart, when the work he accomplished so surprised me that I at once decided to try two light carts, which, after succeeding well in all other operations, I employed in the harvest field; and being fully satisfied with them in this capacity, I soon discarded every wagon from the farm.—*Selected.*

WEST HIGHLAND CATTLE.

Among the breeds of Scotch cattle, which would be adapted to our more northern states, we may mention these. Like the Galloways they are rather adapted to the stall than the dairy; though it is possible that both breeds might, with attention, be much improved in their milking properties. Professor Low says of them,—

"The finest and largest of the native cattle of the Highlands are bred in Argyleshire and the neighboring islands. This character they owe to the greater development of their forms, to the superior herbage of the western coasts, but in a great degree likewise to the superior care bestowed in breeding. After the middle of last century, Archibald, Duke of Argyle, a worthy and patriotic individual, bestowed considerable attention in improving the cattle of the district surrounding his own seat of Inverary; and more recently, numerous gentlemen of the Western Highlands have devoted the most sedulous attention to the improvement of this breed. On these accounts, the variety of the Western Highlands is usually referred to as the model of the breed. It is well known to all breeders, that a certain class of external characters indicate a disposition to arrive at an early maturity of bone and muscle, and to become easily fat. The most essential of these characters are, a large, cylindrical body, dependent upon the greater curvature of the ribs, a body large with relation to the limbs, or, in other words, limbs short with relation to the body, a broad expanded chest, a skin soft to the touch and expansile, a relative smallness of the bones, and an absence of coarseness in the extremities. In certain breeds of the lower countries, these characters may be developed to a high degree; but in a country of mountains and heaths, with a cold, humid, ungenial climate, there must be combined with these a set of characters indicative of that hardness of constitution, without which the animals would be unsuited to the condition in which they are placed. That extreme delicacy of form which can be easily communicated by breeding must be avoided. The hair, while it is silky, unctuous, and free from harshness, should be abundant and curling; the neck should be strong and muscular; the forehead rather broad; and the nose, from the eyes to the muzzle, short; a dewlap should exist as a character of the breed; the eyes should be prominent and clear; the horns should be of good length, without approaching to the coarseness of the long-horns of the lower country, spreading and tipped with black. Now, in the genuine West Highlanders, we shall find such a combination of these characters, as to show them to be well fitted to the country in which they are reared. Their limbs are short, though muscular, their chests wide and deep, their ribs well arched, and their backs as straight as in any other breed. The neck indeed, and dewlap, seem somewhat coarse in the bull; but these are characters indicative of their mountain state; and almost all

their other points are what breeders would term good. They are of various colors. A disposition exists in the breeders of the Highlands to cultivate the black color, as conceiving it to be more indicative of hardiness; and hence the greater number of the cattle of the Highlands are black. The cows of this breed, like those of many alpine districts, are deficient in the power of yielding milk. The milk they give is rich in cream, but it is in small quantity; and they very quickly tend to run dry."

PROFESSOR JOHNSTON'S ADDRESS.

We listened with great pleasure and instruction to the very able address of Professor Johnston, who recently left England for the purpose of examining the agriculture of this country and the provinces of British America. Though the address required a full hour and a half in the delivery, it was listened to with unflagging interest till its close. Its main features, after the introduction, consisted in a succinct history of the present state of European agriculture, as exhibited in the several countries, most of which he has personally visited. The latter part of the address was on miscellaneous topics connected with the subject, in which various important suggestions were made for the advancement of this great interest. We shall soon see this valuable address scattered broadcast over the Union, and hope it may reach every farmer's fireside.

We understand Professor Johnston will not return to Europe before the ensuing spring, and we earnestly recommend to every society or community, who can appreciate the benefits of agricultural science, that, for their own interest, they offer him such remuneration as will insure a course of his invaluable lectures. More particularly do we of New York owe it to ourselves and our community, that we secure from him a full course. This will come with much better effect from the Agricultural Board of the American Institute. The promotion of national objects and improvements should be one of its primary merits; and as the advancement of agriculture is professedly one of its leading objects, there will scarcely occur a more favorable opportunity of carrying out their patriotic purposes. Millions of American gold have here been worse than thrown away on English comedians and their cognate professions. An opportunity is now afforded where a few hundreds or thousands may be most worthily bestowed, and for our own lasting honor and advantage. We shall see if Americans have the enlightened self-interest, the wisdom to do it. — *American Agriculturist*.

PONDS.

Pastures that are destitute of water should have artificial ponds made in them for watering places. "Observe where rushes, weeds, flags, and other aquatic plants grow spontaneously; or where frogs are observed to lie squatted down close to the ground, in order to receive its moisture. Or observe where a vapor is frequently seen to rise from the same spot. Some say wherever little swarms of flies are seen constantly flying in the same place, and near the ground, in the morning after sunrise, there is water underneath." If a well is made in a sloping ground, and the declivity is enough to give it a horizontal vent, it will be worth the husbandman's while to dig such a passage, and by means of pipes or any other conveyance, to carry the water across the light soil, through which it might otherwise sink. The greatest quantity of water will be obtained in this manner, because there will be a continual stream. There is no difficulty in making a durable pond in a

clayey soil. Let a large hollow basin be made in such earth, and it will preserve the water that falls in rain. But it is apt to be thick and dirty, if some pains be not taken to prevent it. The declivity by which the cattle enter should be paved, and gravel should be spread on the bottom. Or it might be better if the whole were paved.

There are many natural ponds which have outlets in one part, and are supplied by brooks and rivers in other parts; but a greater number of smaller ponds, which are perfectly stagnant, unless when they are agitated by winds. Such ponds as the latter, in hot seasons, are apt to become putrid and contaminate the air about them. For this reason, they should, if possible, be drained. And when the water is not deep, and an outlet can be made without too much cost, they should be drained for the purpose of reclaiming the soil. This will be of great value, as it is commonly found to be extremely rich, being made up of the finest particles of soil, wafted into them by winds, and of decayed vegetable substances, besides the fine mould washed into them by rains.

Many farms contain little sunken spots, which are most of the year covered with water, and produce some aquatic bushes and weeds. These are notorious harbors for frogs, and are therefore called *frog ponds*. They should be drained if it be practicable. It is commonly the case, however, that draining them in the common way, by making an outlet, would cost more than they would be worth when drained, because of the height of the land on every side. But in this case, if the banks be not clay, they may be drained in the following manner:—

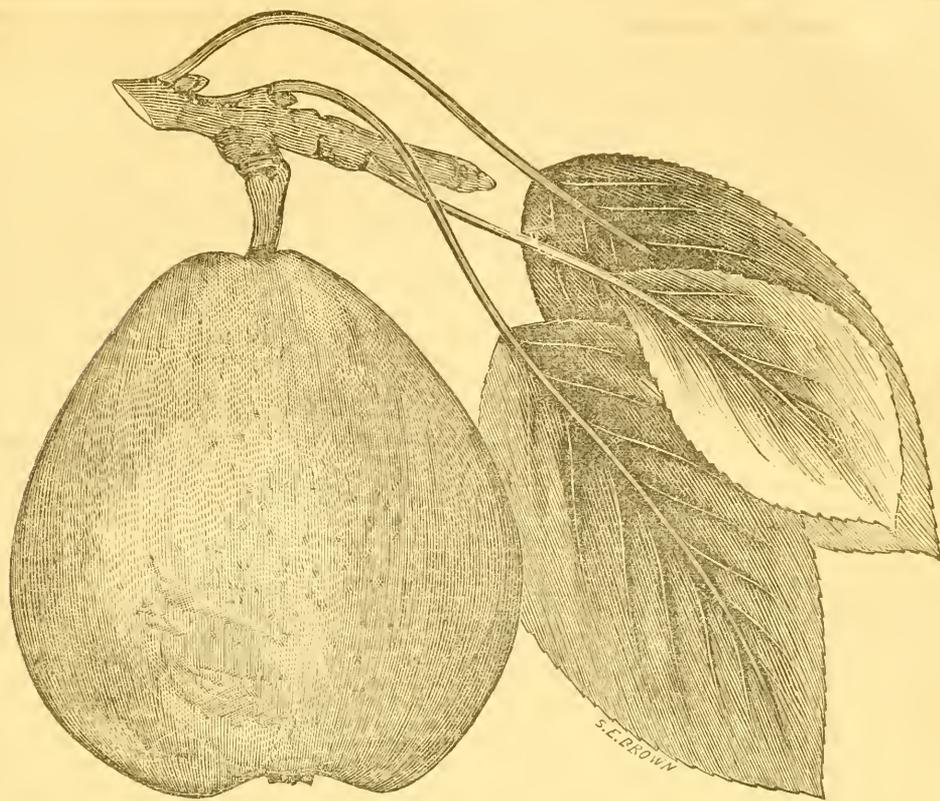
Take notice on which side land that is lower than the pond is nearest. On that side, in the bank near the pond, dig a kind of cellar, two or three feet deeper than the surface of the pond; do it in a dry season. If a hard stratum appear, dig through it; and leave digging when the bottom is loose gravel or sand. Then make an open or a covered drain from the pond to the cellar. The water will be discharged from the pond, and soak into the earth through the bottom of the cellar, till a scurf is formed on the bottom, that will stop the water from soaking into the earth. This scurf should be broken from time to time, and taken away with a long-handled hoe. Or the cellar may be filled up with the refuse stones, and I think it preferable to the other method.

If the pond should not become sufficiently dry, a small ditch should be drawn around it, and discharge itself into the cellar. The land that is thus gained will be rich muck, much of which may be carted away for manure; and common earth or sand may replace it without detriment to the soil. — *Practical Farmer*.

EXCRETORY DUCT OF THE FEET OF SHEEP.

Chancellor Livingston, first president of the New York State Agricultural Society, says the legs of sheep are furnished with a duct, which terminates in the fissure of the hoof; from which, when the animal is in health, is secreted a white fluid; but when sickly, these ducts are stopped by the hardening of the fluid. He says he has in some instances found that the sheep were relieved by merely pressing out the hardened matter with the finger from the orifice of the duct in each foot: it may in some cases be proper to place their feet in warm water, or to use a probe or hand brush for cleansing this passage. — *American Farmer*.

ROT IN THE GRAPE. — We understand the grape crop in this vicinity has been much injured by the rot. — *Cincinnati Gazette*.



THE BELLE LUCRATIVE PEAR.

Synonyms — *Fondante d'Automne*, *Beurre Lucrative*, *Bergamotte Lucrative*.

The Belle Lucrative is among our very best pears. When grown in a favorable location and ripened to perfection, it has but very few equals in quality. A warm, deep, sandy loam is the proper soil for this variety, as it has less character when grown in a moist, cool soil; and this is the case with many other foreign varieties.

The fruit is of medial size, (some specimens are rather large,) roundish-ovovate; skin somewhat rough, pale-yellowish green, with slight russet, and sometimes a little brown full in the sun; stem medial length, rather stout, generally nearly straight, obliquely set in a slight cavity; calyx of medial size, open, in a moderate depression; flesh white, fine texture, very tender, melting, juicy, and of a rich, sugary, delicious, aromatic flavor. It ripens the latter part of September, and often continues into October. The tree is very vigorous, bears well, and flourishes on the pear or quince stock. It is only twelve or thirteen years since this variety first bore fruit in this country; yet it has been widely disseminated, and cultivated in gardens, but not thoroughly tested in orchard culture. So far as it has been proved, it is one of the most valuable pears that has been introduced into the country. It is of foreign origin, and Belgium is supposed to be its native place.

WHO WILL IMPORT SOME HUNGARIAN CATTLE?

Flieschman, in his report to the Commissioner of Patents, in 1847, makes mention of a breed of large, stately cattle in Hungary, which, from his description, must be among cattle what the children of Anak formerly were among men. Other writers have lately corroborated his statement. As Hungary is working out her independence against the combined despots of Europe, and as some of the Yankees may possibly be over there soon, or ought to be, sympathizing with her in a practical manner, we hope they will bring over some of these stately cattle.

"Among all the horned races of Europe," says he, "there are none which, with an equally colossal frame, approach so near the speed of the horse, as do the Hungarian oxen. It is a race of cattle, which, by dint of their high, stately growth, their long horns, (nearly six feet in length,) their proud and bold look, their broad breast, and handsome, white color, changing slightly to blue, and lastly the beautiful proportion of all their limbs, may fairly be pronounced to be one of the most useful and handsome productions of generating nature." — *Maine Farmer*.

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LOVE OF FAME. — The love of fame not regulated by principle, is more dangerous to the welfare of society than the love of money.

NATIVE GRAPES.

MESSRS. EDITORS: I requested last spring, in your paper, that persons having any new variety of the native grape, would do me the favor to forward me cuttings, that I might test their quality both for the table and for wine.

The communication was extensively republished in most parts of the Union, and the result was, that twenty-four varieties were sent me in February and March last. I grafted them, and also planted cuttings. Most of the grafts are now in fruit, and from the wood and leaf, about one fourth of them promise to be of superior quality. All of them are now in this vicinity but two—the Olmsted and Minor's Seedling. Both of these are Fox grapes. The fruit of the first I have not seen; the second is the best Fox grape that I have seen. The pulp is unusually soft, for that family, and the grape remarkably sweet, though it does not contain as much saccharine matter as some grapes less sweet to the taste. It is not a great bearer, though it bears uncommonly well for a grape of that class.

The Fox grape may never be valuable for a wine grape, except to mix with others, to give aroma and flavor. I received cuttings of several varieties of Fox grapes, and the stem and leaf of most of them are so strongly fox, that they cannot be valuable. In my boyhood, I thought this grape the most delicious of all fruits, and I found some that bore a fair crop. This vine is easily distinguished from all others. The leaf is like leather—thick, and of a white color on the under side, and downy, and the new wood covered with a hairy down, generally of a reddish cast. It is a great objection to it that the fruit drops on the ground as soon as it is ripe. I rank the common class as about equal to the Black Scuppernong of North Carolina, (the Muscadine of the Mississippi,) from which it appears that a superior wine is made in North Carolina, by putting three pounds of sugar to the gallon, and which sold at four dollars by the gallon; and from two thousand to three thousand gallons are raised on an acre. Further, a horticulturist there tells us he also makes wine from the green grape; the same person who raises so large a quantity. Mr. Alves, of Kentucky, (formerly of North Carolina,) tells me they put from one fourth to one third of spirits to the gallon, and sell the wine from seventy-five cents to one dollar per gallon: a wide difference in price this. The North Carolina Horticulturist seems learned in the manufacture of foreign wines, as he tells us that one third of brandy is added to port, mahusey, and Madeira wine. This will be news indeed to the European wine merchants.

The Black Scuppernong bears from one to four berries on a bunch, and would, in times of war, if lead be scarce, be as valuable, even when fully ripe, as the Fox grape, for bullets. The White Scuppernong also has a very small bunch, and is a better grape than the Black. But the skin is thick, and the pulp hard: it will never be valuable as a wine grape, unless to give to others must, aroma, and flavor.

Our vineyards may have produced eight hundred, and probably one thousand gallons on an acre; but no vineyard has averaged three hundred gallons for ten years. I believe ground with a mixture of sand, or such as will freely let the rains sink, will be less subject to rot, and average double the crop produced, where the subsoil is a stiff clay.

I shall be gratified to receive letters from all persons having new varieties of hardy grapes in their vicinity, describing the character of the wood and leaf, color, size, and quality of the fruit, &c. After importing foreign grapes for thirty years, from all latitudes, I have never found one worthy of cultiva-

tion in the open air; nor do we require them. We have native grapes of superior quality, both for the table and for wine; and by raising seedlings from our best natives, and from a cross between them and the best foreign, we can greatly improve them. We have neglected our native grapes.

Forty-five years since, I heard of a superior grape in the garden of Mr. Zane, of Wheeling, found by him in a wild state on Wheeling Island. I sent for cuttings, and found the grape of no value. I heard of a person in Kentucky who had it, and that it proved of good quality. I obtained cuttings, and it proved to be the *Veray*, or *Cape* (Schuylkill Muscadell) grape. I am now satisfied that neither was the Zane grape. I, this spring, had cuttings sent me from a vine got of Mr. Zane some thirty years since, and which has never got out of the neighborhood, and which I doubt not will prove of superior quality.

A native grape, of different aroma and flavor, and in all respects equal to the Catawba, would be worth millions of dollars to the nation. If my correspondents do not err, some of the kinds sent me are superior. The origin of the Catawba is in doubt. Major Adlum first brought it into notice, having found it, some twenty-five years since, in the garden of a German, near Washington city.

I received, recently, an interesting letter from Mr. Alves, of Henderson, Kentucky. He was born in North Carolina, and says he heard of the Catawba grape in the upper part of North Carolina forty years ago, and that it was discovered near the Catawba River, from which it derived its name. A grape, precisely the same, is said to have been discovered in a wild state, a few years since, in Pennsylvania. I have one from the south-west, of the same color, aroma, and flavor, but smaller, and the vine of slow growth, and a poor bearer; and one bearing much larger fruit, of precisely the same character, but inferior. I discovered it in the centre of my vineyards, and know not how it came there. — N. Loxworth, in *Cincinnati Gazette*.

TO DESTROY BRIERS.

The brier, as a plant, grows more luxuriantly in beech and maple land; and when the timber is cleared and the sun has a chance for action, they grow very fast, so that, in a short time, it is with difficulty that they are kept down. In the spring of '45, I moved on a new farm, containing two hundred acres and upwards, with about forty-five acres improved, or partially so. There was at the time eight or ten acres completely grown up to briars. I commenced operations on about half of it; I ploughed it thoroughly and planted to corn. By the time the corn was up ready for hoeing, the briars had completely overrun it. I hoed it and cleared it, and by the second hoeing it was as bad as ever. I then went over it the same way the third time. In fact, the more I hoed and tried to destroy them, the faster they grew; and by the time of harvesting, they had grown half as high as the corn. The next spring I sowed it to oats, and was poorly paid. At the time of harvesting, my hands were much torn and lacerated by the briars, besides not having half a crop. I then concluded to try some more efficient mode, having become tired of endeavoring to subdue them by cutting. I then sowed the ground to clover. The briars came up as usual, but looked sickly. The year following, I pastured it with sheep; and now the briars have almost become extinct. I have tried every mode in the way of cutting, and I am persuaded that it is labor lost. I have tried cutting in the dark of the moon, and in August, all to no purpose. I am of the opinion that clover is the best

means of getting rid of them, being quick and profitable.

J. R. K.

CRAWFORD Co., Pa., 1849.

— *Philadelphia Dollar Newspaper.*

REMARKS BY EDITOR N. E. FARMER. — We have no doubt that the briers were destroyed more by the sheep than by the clover; for they will not flourish where sheep run among them; yet the clover had an excellent effect in inviting the sheep among the brambles. It is very common in agricultural experiments to ascribe effects to wrong causes; and it is the same in other sciences. During this season, we have seen accounts of the valuable effects of sulphur for cholera, but we noticed that it was given with charcoal; and we have no doubt that the charcoal was the principal remedial agent, as it is excellent in diarrhoea, which usually attends the cholera, and causes a sudden prostration of strength. Sheep alone, if induced, by any grass, to go among briers, will cause their complete destruction; perhaps from the oil in the wool.

PARSNIPS.

A correspondent has written to inquire "whether we know, by our own experience, the quality of the parsnip for feeding and fattening pigs." In answer, we beg to state, that, at our farm at Catlands Bingmea, we have been in the habit of employing parsnips for that purpose for some time. Upon reference to our books, we find that on the 11th of October, 1847, we put up two shotes of eleven weeks old, and fed them on skim milk and parsnips, for three months, when they were killed, weighing two hundred and thirty-one and two hundred and thirty-eight pounds. They were well fattened, firm in flesh, and the meat of excellent flavor. The quantity of parsnips consumed by them was nine bushels each. — *Sussex [English] Express.*

REMARKS. — We have often wondered that no account is made of this valuable root. All the world is alive to the value of the carrot; while this esculent is entirely overlooked. That the parsnip contains more saccharine matter than the carrot, or even any of the beets, we are satisfied. A very excellent wine is made of it, which we venture to assert cannot be made from any other of the whole root crop. Its estimation as an edible for the table also tells in its favor. And a herd of hogs turned into a field containing bagas, beets, carrots, and parsnips, would not be long in settling the question which they like the best; and as they cannot read the *Genesee Farmer*, and are not influenced by any of our blundering theories, and trust alone to experience, and that unerring guide that nature has provided them in the place of reason, we are disposed to give them the credit of being very capable judges — very. — *Genesee Farmer.*

PLANTING TREES.

The most remarkable, if not the most culpable, neglect, — that which indicates an unamiable and uncultivated, as well as improvident nature, — is the omission, on the part of gentlemen in the country, to plant trees about their homesteads, for shade and ornament, if not for fruit and profit. Let any one who would be convinced how easy it would be to provide, in a few years, even in the most exposed and barren situations, all the beauty and luxury of a natural forest, only walk as far as the Lunatic Asy-

lum, between Spruce and Pine Streets, Philadelphia, and see how thriving is every one of the handsome trees so thoughtfully planted out there last autumn, at the instance of Mr. Cresson, in anticipation of the failure, some years hence, of the old sycamores. The work is only to be once well done, and the trees well protected, and then they may be left to endure forever, as monuments of the good taste of the planter, transmitting his memory with gratitude to posterity.

We remember now, at the moment of scribbling this hasty but earnest exhortation to all our young friends to plant trees — maples, horse chestnuts, locusts, linden-trees, (any thing but Lombardy poplars,) — that there is in the garden, near the house at Duoraghen Manor, Maryland, the classic residence of the late venerable Charles Carroll of Carrollton, a weeping willow, stately and graceful, like her who planted it when a child, that will always be associated with the name of Mrs. Caton. How much more are such memorials to be coveted than monuments stained with blood and cemented with the tears of the widow and the orphan! — *The Plough, Loom, and Anvil.*

AMOUNT OF MINERAL MATTER ASSIMILATED BY VARIOUS CROPS.

It is found, on analysis, that an acre of wheat, being an average crop, carries off with it no less than two hundred and ten pounds of inorganic elements, viz.: thirty pounds in the grain, and one hundred and eighty pounds in the straw — a striking proof of the importance of consuming the straw upon the land. Barley takes two hundred and thirteen pounds — fifty-three in the grain, and one hundred and sixty in the straw. Oats take three hundred and twenty-six pounds — thirty-two in the grain, thirty in the husks, fifty-four in the chaff, and two hundred in the straw. A crop of turnips, of twenty tons per acre, when removed off the land, carries off six hundred and fifty pounds of mineral matter. Potatoes, including the tops, take off five hundred and eighty pounds, the tops containing about four hundred pounds. Cabbage carries off nearly one thousand pounds. — *Huxtable.*

IRON FOR APPLE-TREES.

A correspondent of the Albany Cultivator, writing from Fredericksburg, Va., says, "A friend who has a large orchard of 'Rawle's Jannett apple,' has ten trees upon one corner of the orchard which always produce fruit a third larger, and flavor so much superior, that it was supposed by all who saw and ate the apple, that they were a superior variety of the Jannett. This spring I examined the soil, and found that a vein of iron ore passed just under the ten trees, so near the surface that it had been ploughed and worked up with the top soil. A variety of the large Blue plum growing upon the same ground, is also very fine; while grafts taken from the same plum-trees, and worked upon stocks grown on different soil, prove worthless." — *Maine Farmer.*

IRON.

A pound of iron in a crude state is, perhaps, worth a cent. It is converted, we will suppose, into steel, and then into watch springs. Now, according to a calculation made in a work upon this subject, there are 7000 grains in a pound weight, and every watch spring weighs a tenth of a grain. 70,000 watch-springs, worth, say \$2 each, yield \$140,000 for the pound of iron, or rather for the labor expended upon it.

Domestic Department.

THE EFFECTS OF COSMETICS ON THE SKIN. — The deep interest I take in the moral improvement of my young countrywomen, more particularly those who are so fortunate as to be the wives and daughters of farmers, must be my apology for the following remarks upon the article in the January number of the *Agriculturist*, on the "Effects of Cosmetics on the Skin." I shall therefore ask no other excuse for expressing my difference of opinion, nor for pointing out what I conceive to be mistaken views on the subject, feeling very sure that a little serious reflection will bring your correspondent over to my old-fashioned way of thinking. Let me say, however, that I agree entirely with her observations on the different kinds of soap, alcoholic preparations, &c.

We know that all kinds of soap are more or less injurious to a delicate skin, and in cold weather their too frequent use should be dispensed with as much as possible; but when necessary, the skin should be protected afterwards, for a little while, from the air. Therefore, when cleanliness requires it for the face and neck, they should be washed just before retiring at night; and in the morning, nothing more will be wanted than the usual sponge bath of pure, cold, soft water, and a coarse rubber vigorously applied. Some skins will chafe under the most careful treatment that can be bestowed upon them; while others will continue soft and smooth, though exposed to every wind that blows, and seem to be proof against all kinds of domestic labor. For the first of these, the best purifier would be corn or bean meal, or palm-oil soap, followed by a few drops of honey rubbed on while the hands are wet. Fine dry salt acts very pleasantly on the skin, rendering it soft and smooth, and has also the advantage of strengthening the system, on which account it is highly recommended by physicians. The best way to apply it is, to draw on a pair of very coarse cotton or linen knitted gloves, that have been frequently dipped in strong salt and water, and dried after each immersion, and with them rub until the skin looks red, and the blood circulates freely.

But it is the second part of your correspondent's remark that I intend particularly to notice. That the writer does not speak from personal experience I think is evident, or she would not say that "rouge can be employed, without injury, to brighten a lady's complexion."

Every school girl knows that even the common carmine in her paint box, if put on the cheeks with water, cannot be washed out without leaving a permanent mark. I have been much in fashionable French society, where the use of rouge was not only considered unblameworthy, but in certain cases openly vindicated; yet its deleterious effects upon the skin were undoubted, and openly lamented, as producing a sallow stain, which, as it cannot be removed by ordinary means, makes a continuance of the bad practice seem necessary. And a bad practice it is, in sober sadness, for any woman; but for women living in this bright, beautiful country, for the wives and daughters of American farmers, even to think of using rouge and pearl powder, would be ridiculous, could it be contemplated in any other light than as a degradation — they, too, who enjoy the glorious privilege, not to be too highly prized, of living in the pure, health-giving breath of heaven, — who are at liberty to exercise daily on horseback, and roam at will over hills and fields. I will not think so badly of them as to suppose that they would condescend to tolerate the use of such miscalled *beautifiers*. It is true, a pale cheek is not esteemed so lovely as the one tinged with

"Celestial rosy red, love's proper hue;"

nor is a dark or coarse skin thought so desirable as one fairer and more delicate. But does not every one know instances, among their friends, of faces by nature ugly, to which intelligence, benevolence, and good temper impart the characters of real, soul-like beauty? Believe me, God's handiwork cannot be improved. And the admiration of strangers is dearly purchased by the loss of the respect of those in whose eyes and hearts alone it should be their ambition to appear to advantage; for the mistaken ones, who resort to these paltry arts, do not deck their faces with rouge and pearl powder, to make themselves more lovable to their husbands and brothers. It is not put on when they alone are to see them. No: any garb, any faded looks, will do for the beings who ought to make their hearts happiest; with whom they are to pass their lives. For whom, then, it may be asked, are they willing to take so much trouble? They who know from experience may answer.

All substances, without a single exception, that are, or can, be used to "impart a delicate white tint to the complexion," are decidedly injurious; marvelling what they are intended to mend.

The "metallic compounds" are justly said to be poisonous; and the effect, even when sparingly used, is to make the skin look parched and glazed. Magnesia, being a mineral substance, is not much less hurtful; and powdered starch, though the least objectionable of any, is seriously injurious by the mechanical action of closing the pores of the skin, preventing the escape of the insensible perspiration which would keep it clear and moist, and finally producing a sickly, unnatural thickness, that makes a fair girl, who would otherwise be pretty, look like Jersey veal, bled slowly to death by the butcher! and a brunette more like a piece of old parchment than a lovely young daughter of Eve. Of such a one, in a neighboring city, I heard a physician remark, that this disagreeable appearance, being only skin deep, could be easily removed by the application of a vegetable blister!

But I must close this already too long notice; though something might be said of the pangs of wounded vanity that these short-sighted fair ones would suffer, if

"Some power the gift would gie them

To see themselves as others see them;"

when a warm day, or a little over exertion, by producing a free perspiration, throws off the beautifiers, leaving the white in disclosed streaks, and the red in unsightly blotches, to the mortification of their friends, and the badly-disguised amazement of the very persons they wished to charm. American women should be ashamed to appear under "false colors."

It has been often asked why the women of England have better complexions and more healthful looks than those of the United States. The humidity of the climate is doubtless one cause of the greater and more lasting delicacy of the skin; but the bright bloom of their cheeks is the effect of regular, systematic exercise. English ladies, of even the highest rank, wear thick leather shoes, and walk every day six or eight miles, without regard to the weather, and with no other object than the preservation of health.

I will close with the assurance, affectionately urged upon all who have had patience to read thus far, that early rising, cold-water bathing, and daily exercise in the open air, as they promote health and cheerfulness, are the only cosmetics that an American woman should dare employ. — *American Agriculturist*.

SHRINKING OF FLANNEL. — Enclose new flannel in a bag; put it into a boiler with cold water; heat

and boil it. It will never shrink any more after this operation, and should then be made up into garments. — *Selected.*

TO PURIFY RIVER OR ANY OTHER MUDDY WATER. — Dissolve half an ounce of alum in a pint of warm water, and stirring it about in a punchcon of water just taken from any river, all the impurities will soon settle to the bottom, and in a day or two it will become as clear as the finest spring water.

Boys' Department.

POLITENESS AT HOME. — Always speak with the utmost politeness and deference to your parents and friends. Some children are polite and civil every where else except at home; but *there* are coarse and rude enough. I trust you will never be one of these.

Titles of respect, too, should not be forgotten. "Yes, sir," and "No, sir," "Yes, ma'am," and "No, ma'am," sound much better, as well as much more refined and well-bred, than the blunt "Yes," and "No," which very many children in these days are accustomed to use.

Nothing sits so gracefully upon children, and nothing makes them so lovely, as habitual respect and dutiful deportment towards their parents and superiors. It makes the plainest face beautiful, and gives to every common action a nameless but peculiar charm. — *Selected.*

BAD BOOKS. — Bad books are like ardent spirits: they furnish neither aliment nor medicine; they are poison. Both intoxicate — one the mind, the other the body. The thirst for each increases by being fed, and is never satisfied. Both ruin — one the intellect, and the other the health — and together, the soul. The makers and venders of each are equally guilty, and equally corrupters of the community; and the safeguard against each is the same — total abstinence from all that intoxicates mind or body. — *The Well-Spring.*

Health.

EFFECT OF STOVES UPON HEALTH. — All experience has demonstrated their debilitating influence upon the nervous system; and nothing is more true than that the mind sympathizes with the body in all its derangements. Our old men remember when the aggregate of good health was far above its present standard; when men and women could endure twice the fatigue that they can now; and when consumption, the present scourge of the north, and New England in particular, was almost unknown, or existed only as a slow disease, that had to battle with life for many years before its strong victim succumbed to its power. It has been thought that the bad health and constitutions of our farming population, particularly the female portion of farming families, are owing to a change of diet. There is no truth in the idea. Farmers live as judiciously now as they did fifty or one hundred years ago. On our mountain towns, among the primitive hills and pure air of Vermont, all over New England in fact, the population are better fed and better clothed, are subjected to less injurious exposure, and are called to bear less prostrating fatigue, than in those "good old times, a hundred years ago." Yet, where the pure air roves freest, where the dark wings of miasm never come, all along the beautiful green mountain ridge, through

Vermont and Massachusetts, do we find consumption doing its deadliest work, and an aggregate of female invalids that can hardly be equalled in any miasmatic valley in the far south-west.

It is in vain to look for the causes of all these evils in any thing but the atmosphere of the dwelling. The food is wholesome, the air as pure as any in the world, and the water as good. The simple statement of the case is, that the houses are made too close, the rooms are kept too hot, and the grand ventilator — the chimney — is closed. The evil is insidious, and in the manner of its approach should be a warning. A reference to experience will show, that when the stove was first introduced, the heat was intolerable. Afterwards it became agreeable; then it was found necessary; still further on, the heat was raised, until, at last, the weakened and relaxed skin shrunk with dread from a breath of cold air, and all stirring from the room was forbidden on penalty of a cold. The difference between the atmosphere out and in doors made the transition always attended with danger. Every physiologist, and every common observer, understands the intimate sympathy that exists between the skin and the lungs; and here, at this point, is where consumption and other similar and dissimilar evils step in, and find prepared for them a house, swept and garnished. Here lies the secret of mountain diseases, the erysipelas, low fevers, rheumatism, etc., etc.

We by no means propose the abolition of stoves. They form a prominent part of family economy. The poor cannot do without them, nor will the rich. The fire and the damper should in all cases be controlled by the thermometer. This little instrument should be in every house. Again, free ventilation, that shall secure to every room good-pure air, is absolutely indispensable; and still further, a proper amount of cold bathing and friction, to enable the skin to retain its tone, should be observed by every individual who spends the winter in doors. — *Springfield Rep.*

Mechanics' Department, Arts, &c.

CONSTRUCTION OF ICE-HOUSES. — Abroad both the ice-house and hot-house are portions of the wealthy man's establishment solely. But in this country, the ice-house forms part of the comforts of every substantial farmer. It is not for the sake of ice-creams and cooling liquors, that it has its great value in his eyes, but as a means of preserving and keeping in the finest condition, during the summer, his meat, his butter, his delicate fruit, and in short, his whole perishable stock of provisions. Half a dozen correspondents lately have asked us for some advice on the construction of an ice-house, and we now cheerfully offer all the information in our possession.

To build an ice-house in sandy or gravelly soils, is one of the easiest things in the world. The drainage there is perfect; the dry and porous soil is of itself a sufficiently good non-conductor. All that is necessary to do, is to dig a pit twelve feet square and as many deep, line it with logs or joists faced with boards, cover it with a simple roof on a level with the ground, and fill it with ice. Such ice-houses, built with trifling cost, and entirely answering the purpose of affording ample supply for a large family, are common in various parts of the country.

But it often happens that when one's residence is upon a strong loamy or clayey soil, based upon clay or slate, or, at least, rocky in its substratum. Such a soil is retentive of moisture; and even though it be well drained, the common ice-house just described will not preserve ice half through the summer in a locality of that kind. The clayey or rocky soil is always damp: it is always an excellent conductor,

and the ice melts in it in spite of all the usual precautions.

Something more than the common ice-house is therefore needed in all such soils. "How shall it be built?" is the question which has been frequently put to us lately.

To enable us to answer this question in the most satisfactory manner, we addressed ourselves to Mr. N. J. Wyeth, of Cambridge, Mass., whose practical information on this subject is probably fuller and more complete than that of any other person in the country — he, for many years, having had the construction and management of the enormous commercial ice-houses, near Boston — the largest and most perfect known.

We desired Mr. Wyeth's hints for building an ice-house for family use, both above ground and below ground.

In the beginning, we should remark that the great ice-houses of our ice-companies are usually built above ground; and Mr. Wyeth, in his letter to us, remarks, "We now never build or use an ice-house under ground; it never preserves ice as well as those built above ground, and costs much more. I, however, send you directions for the construction of both kinds, with slight sketches in explanation." The following are Mr. Wyeth's directions for building:—

1st. An Ice-House above Ground.—An ice-house above ground should be built upon the plan of having a double partition, with the hollow space between filled with some non-conducting substance.

In the first place, the frame of the sides should be formed of two ranges of upright joists, six by four inches; the lower ends of the joists should be put into the ground without any sill, which is apt to let the air pass through. These two ranges of joists should be about two feet and one half apart at the bottom, and two feet at the top. At the top these joists should be mortised into the cross beams which are to support the upper floor. The joists in the two ranges should be placed each opposite another. They should then be lined or faced on one side, with rough boarding, which need not be very tight. This boarding should be nailed to those edges of the joists nearest each other, so that one range of joists shall be outside the building, and the other inside the ice-room or vault.

The space between these boardings or partitions should be filled with wet tan, or sawdust. The reason for using wet material for filling this space is, that during winter it freezes, and until it is again thawed, little or no ice will melt at the sides of the vault.

The bottom of the ice-vault should be filled about a foot deep with small blocks of wood; these are levelled and covered with wood shavings, over which a strong plank floor should be laid to receive the ice.

Upon the beams above the vault, a pretty tight floor should always be laid, and this floor should be covered several inches deep with dry tan or sawdust. The roof of the ice-house should have considerable pitch, and the space between the upper floor and the roof should be ventilated by a lattice window at each gable end, or something equivalent, to pass out the warm air which will accumulate beneath the roof. A door must be provided in the side of the vault, to fill and discharge it; but it should always be closed up higher than the ice, and when not in use should be kept closed altogether.

2. An Ice-House below Ground.—This is only well made by building up the sides of the pit with a good brick or stone wall, laid in mortar. Inside of this wall set joists, and build a light wooden partition against which to place the ice. A good floor should be laid over the vault, as just described; and this should also be covered with dry tan or sawdust.

In this floor the door must be cut, to give access to the ice.

As regards the bottom of the vault, the floor, the lattice window in the gables for ventilation, etc., the same remarks will apply that have just been given for the ice-house above ground, with the addition that in one of the gables, in this case, must be the door for filling the house with ice.

If the ground where the ice-houses of either kind are built is not porous enough to let the melted ice drain away, then there should be a waste pipe to carry it off, which should be slightly bent, so as always to retain enough water in it to prevent the passage of air upward into the ice-houses.

These plain and concise hints by Mr. Wyeth will enable our readers, who have failed in building ice-houses in the common way, to remedy their defects, or to construct new ones on the improved plan just given. The main points, it will be seen, are, to place a sufficient non-conducting medium of tan or sawdust, if above ground, or of wall and wood partition, if below ground, to prevent the action of the air, or the damp soil, on the body of the ice enclosed in the vault.

Mr. Wyeth has not told us how large the dimensions of an ice-house built on either of these modes should be, to provide for the use of an ordinary family through a season; but we will add, as to this point, that a cube of twelve to fourteen feet "in the clear," every way will be quite large enough, if properly constructed. An ice-house, the vault of which is a cube of twelve feet, will hold about fifty tons of ice. One of this size, near Boston, filled last January, is still half full of ice, after supplying the wants of the family all the season.

In the ice-houses above-ground, the opening being in the side, it will be best to have a double door, one in each partition, opposite each other. The outer one may be entire, but the inner one should be in two or three parts. The upper part may be opened first, so that only so much of the ice may be exposed at once, as is necessary to reach the topmost layers. — *Horticulturist.*

ON THE NATURE OF SOILS.

An all-wise Creator, for some all-wise purpose, decreed that plants and animals should derive their subsistence from the soil; hence we find all the elements of vegetable and animated nature in the soil. For instance, in most soils we find iron abundant; then, if we look into the animal economy, we find iron in the blood and muscles of both man and the lower orders of brute creation. And the wonder-working chemist detects nature in using the same ingredient in coloring all the fruits and flowers. All things having once been created, the making principle stopped, and a changing one immediately took its place, and has never ceased to act since mutability was indelibly stamped upon all creation. In the formation of plants and animals, Nature, gradually collecting her materials, slowly forms her most perfect specimens; but like a human mechanic, inasmuch as she lacks one or more of the materials, in the same degree is her fabric imperfect. Thus we see that if the soil in the field lacks one or more ingredients in the formation of a vegetable, the plant assumes a dwarfish, sickly appearance, like an animal robbed of its food. Now, the farmer, to be a good husbandman, must plant the germ, and place around it all the materials of which it should be composed; then Nature, the handy-workman, soon rears the perfect plant:

The question now arises, what those ingredients and materials are. The chemist has given us all the knowledge he has on the subject: the air and

the water, the soil and the subsoil, have each a part in their possession, and should each be made to contribute a share. Nature, in the production of a perfect plant, does not restrict herself to the animal, vegetable, or mineral world. The opinion so generally prevalent that the soil, two or three feet below the surface, must consequently be entirely barren and useless, may be, and doubtless is, erroneous in many instances, especially in that called *hard pan*. If, in producing the perfect plant, nature needs twenty ingredients, nineteen may possibly be found in the surface soil, while the twentieth may be found in the subsoil. Instances have occurred where a good dressing from soil ten feet deep, entirely destitute, to all appearance, of vegetable matter, have had equally as good, or the same beneficial effect, as a good dressing of gypsum. This is truly an age of improvement. Many a farmer has found, while others have yet to find, a mine of wealth below the reach of his plough, of which he was as unconscious as the mountain of its ore. It is very reasonable to suppose, that the newly-created world was at first entirely a mineral mass of matter, from which vegetables soon grew abundantly enough to support all animated nature. Geologists generally suppose the action of the elements, for an indefinite length of time, was necessary to fit it for the abode of plants and animals; but be that as it may, I believe the action of frost upon ploughed fields, with the winter's rain and snow, to be a powerful fertilizer in this climate. Hence, fall ploughing and deep ploughing should go together, and be followed by heavy dressings of manure, and particularly such as the soil lacks, is my creed, derived from experience, and as such, I firmly believe it true. LABORER.

ABINGTON, CENTRE COUNTY, PA., 1849.

Philadelphia Dollar Newspaper.

PROGRESS.

Lightning and steam have not only superseded horse power on land, and wind on the water, but, with as astonishing a revolution, they have quickened the human brain, until the ideas of the age are equally more rapid than those of half a generation ago, as are the means of transmitting them from brain to brain the world over. In the day of wooden ploughs, the great danger was in going too fast and knowing too much; now the difficulty is to go fast enough, and know enough. The fear, so groundless with our good old fathers, that new inventions and enterprises were dangerous to the welfare, virtue, and peace of society, is completely extinguished. Men have found out the essential secret of prosperity and greatness — that all progress is the work of experience; and the result of experiments, in spite of the old stand-still philosophy, has sharpened them to go on experimenting more and more elsewhere, in all fields, paths, and professions. Thus have they curbed and saddled teams, tamed lightning, cast by wooden ploughs, and in a thousand ways advanced and exalted themselves, physically and mentally, as individuals and as nations. — *Selected.*

POSTS UPHEAVED BY THE FROST.

We observe post fence, in certain spots, to rise up annually more and more, until, after a few years, swine can creep under; and it often leans so much, that props become necessary to prevent its falling.

Now, what is the cause of this upheaving? On examining, we find that these spots are wetter, and the ground more spongy, than the other parts of the line. Well, what then? Why, in severely cold weather, the wet surface freezes, fastening round the post a solid cake, under which is applied the great

power of water expanding into ice, and the fence is lifted up. The intensity of the frost, and the looseness or wetness of the ground, will determine the amount of upheaval, which may be one or more inches in a winter. Perhaps, indeed, the post may fall back a little when it thaws; but it seldom, if ever, slides back to the bottom of the hole, and is sure to take a new start upward in the following winter.

In these insurrectionary movements, several posts are generally concerned together; and the best way that I have found to reduce them, is to strike with a beetle, only a few strokes at a time, on the head of each, so that the fence shall not be racked by driving too far at once. When thoroughly driven back, the operation may not need to be repeated in less than two or three years. It would be the better and cheaper way, however, to prevent all such risings in future by filling up the holes with solid earth, and thoroughly pounding or ramming down every new layer of two or three inches in thickness. All soft muck, or spongy soil, should be rejected. Nothing better than hard pan can be obtained for this purpose — at least, a mixture of gravel or small stones through the earth is desirable. With these precautions, we should have no trouble, even in swales; for the posts even there would stand in dry, firm, solid earth. W. W.

SQUANCON, N. J., 1849.

— *Philadelphia Dollar Newspaper.*

ACKNOWLEDGMENTS.

Of Dr. Rufus Kittredge, Portsmouth, N. H., some large sweet apples, very fine indeed for baking Green Sweeting, distinguished for its very late keeping. Baldwin apples. These grew on a tree taken from the original tree in Tewksbury, which we shall notice further, by and by, in regard to the origin of the Baldwin apple.

From James Oliver, Lynn, Diana grapes, of excellent quality. Friend Oliver says of this grape, that it is probably a cross between the Catawba and White Sweetwater; that it is two weeks earlier than the Isabella, of rather slow growth, and a good bearer. He regards it as a superior kind for outdoor culture. We have cultivated this grape a few years; but as our first vine is in a cool soil, and shady situation, and we have forced it into the growth of wood rather than the production of fruit, we have a large growth.

Of Elisha Tower, of this city, fine apples, raised by J. F. Fay, Northboro'. The seed of the original tree was planted by Mr. Fay's mother, forty years ago. This is very handsome and excellent fruit; rather large, pale yellow striped with red, very crisp, juicy, of a mild and fine aromatic flavor.

From M. L. Hayes, Farmington, N. H., pears grown on an apple stock. Three years ago, in grafting an apple-tree, Mr. Hayes set some pear scions into one branch by mistake; they flourished well, and healed over sound; and this, the third year from grafting, that branch produced half a bushel of pears; and he says, if the whole tree had been grafted to pears, and yielded as well as this branch, the produce would have been six bushels. This is a very successful experiment, or *incident*, in grafting the pear on the apple. These pears are rather large.

fair, pleasant, and melting. Mr. H. supposed that he set scions of the St. Michael; but these are not like that variety in form, color, or quality, nor do they seem like any kind generally cultivated.

From Colonel F. R. Bigelow, Medford, very good St. Michael pears. Mr. B. informs us that this variety failed until he hung old iron on the tree, as had been recommended by some cultivators. It has been supposed that iron around or on a tree furnishes that element, by the rust being taken up in solution by the sap. But we would remark, that this variety of pear has generally done remarkably well this season, without the aid of iron; so it may be the season, not the mineral element, that has effected the improvement. If iron hung on a tree ever has a good effect, it may be from its electrical quality, rather than from a deficiency of this element in the soil to supply this constituent of the tree. Oregon corn, which he has been acclimating by cultivating several years. It resembles the many-rowed corn of the south, excepting the ear is shorter, and the stalks are much less in height.

Of E. W. McIntosh, Needham, pretty good native grapes. Of all the native wild grapes that we have tried this season, those from Captain Amos Perry, South Natick, are the best.

Of John Tilson, South Boston, fine specimens of Isabella and Catawba grapes. The latter are of remarkably large bunches. Under ordinary management, this variety has rather small and loose bunches; but skillful culture produces noble, compact bunches, and large berries.

Of R. W. Annable, Portsmouth, N. H., pears from a garden in that town. They are large, fair, handsome, and very sweet. They would sell well in market, but they lack the high character of our best varieties in quality. The kind is not known in this section.

Of Charles Pierce, Milton, three lots of pears, from different times of blossoming — the first at the usual time in spring, the second in June, and the third the first of September.

From John M. Glidden, Charlestown, N. H., fine specimens of his crop of corn, mostly of the Dutton variety. He has six acres of corn, which, from a specimen that has been harvested and measured, will yield eighty-four bushels to the acre.

The Mayflower Quince. — In our last number, we noticed an excellent new seedling quince, raised by J. Washburn, Plymouth. Since our notice, we have received of Mr. W. the name that he has assigned to it — the *Mayflower*, which was the name of the vessel that brought the first Pilgrim fathers to the New World. They landed at Plymouth. The name is a good one, commemorating one of the most important events in the annals of mankind, which transpired at the place where this fruit originated.

NOTICES OF PUBLICATIONS.

HOVEY'S MAGAZINE OF HORTICULTURE. — This work still continues with unabated interest, often present-

ing new fruits, or new and important facts that claim the attention of florists and pomologists.

THE ANTIQUARIAN. — This collection of ancient church music must be highly prized, as it contains many good tunes of "Auld Lang Syne." We are pleased to see them collected and kept along in a permanent form, so that they may not be swept away by the busy hand of innovation. Published by C. C. Clapp, Court Street.

For the New England Farmer.

STANZAS.

O, heaven's pure breezes are all my own,
And mine are the genial showers,
The sunlight's glow on the blooming earth,
And the wealth of fair-wild flowers,
Which, circled with leaves of polished green,
In every woodland path are seen,
To gladden my steps where'er I stray,
And banish the shades of grief away.

Let others sing of the harp and lyre:
The caroling bird and humming-bee,
The summer zephyr's gentle sigh,
Have many a pleasing note for me;
And there's music, too, in the streamlet's flow
Which o'er the pebbles murmurs low,
And the voice of the echo which dies away
With the cottager's song at close of day.

I love to gaze on the radiant sky
Beneath the soft veil of even,
And watch each star whose golden ray
Illumes the vault of heaven.
A holy calm o'er my spirit steals,
As Nature her matchless charms reveals,
And I hear a voice like music fall —
"Your Heavenly Father made them all!"
LEBANON, Ct., August, 1849. E. C. L.

THE OLIO.

CURIOS ANAGRAMS. — About as neat a use of initials, in the expression of an idea, as we have ever seen, is in the following couplet, written on the alleged intended marriage of the old Duke of Wellington with Angelina Burdett Coutts, the rich heiress: —

"The duke must in a second childhood be,
Since in his doting age he turns to A B C."

It is only the calm waters that reflect heaven in their breast.

PRIDE. — Pride emanates from a weak mind: you never see a man of strong intellect proud and haughty.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 30 cents a year, beyond those distances.

STEREOTYPED AT THE
BOSTON TYPE AND STEREO TYPE FOUNDRY.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, NOVEMBER 10, 1849.

NO. 24.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

PREPARE FOR WINTER.

THE hoarse winds are already sighing a requiem to the gay season, and the surly blast of Winter will soon be here, with his reign of terror to those who are unprepared. Farmers have a great deal to do to get ready for his approach, and no opportunity should be neglected to have every thing in readiness. As the days are short, early rising is important to success, that animals may be fed in season, and every thing ready to commence labor as soon as it is light enough to see to work; and a brisker action may be borne than in the hot days, for if it produce a little fatigue, the long nights of rest will recruit and invigorate the system.

Trees that have been newly set should be protected by heaping up the earth around them, to keep the roots warm, and support the tree against the winds; for if left swinging in the winds, when the ground is soft, it will be loosened in the roots, and the water will run down around them, which, with the frost, may destroy them. Those who object to fall transplanting, probably do not set their trees well. We have set many trees from the last of September to December, and never lost one set at this season. Carefully protect trees from cattle, or they will destroy them when feed is scarce.

Fences should be kept up to keep animals from grass lands, for soft lands are much injured by being poached by them, to say nothing of the injury from close feeding.

Manure should be removed from the barn-yard, hopen, and other depositories, to a convenient place for using in the spring; and such places of deposit should be abundantly replenished with peat, mud, muck, loam, sand or gravel, to absorb the liquid manure, and to combine with the solid parts to save them from waste. Dig mud and peat, and if convenient, haul them to where they will be wanted, that they may be exposed to the influence of the frost, in order to decompose and mollify them, and render them better prepared as a good mellow manure. To this purpose, they should not lie in very large or thick heaps, as, in that case, the frost would not act on the middle or bottom of the heap.

Ploughing.—Many soils are improved by fall ploughing, as they become more mellow by freezing and thawing. Witch-grass and weeds are often destroyed by fall ploughing; and it often destroys insects, particularly in very changeable or open winters, as those are called that are occasionally mild, and the ground bare. But were there no advantage in fall ploughing, as to the soil, it is well to attend to as a matter of convenience, when the teams are strong, and in order to do all that is possible to forward the work for the busy season of spring. When ploughed lands are liable to be washed, drains should be made to direct the water from them.

Stock of every description should be protected against inclement weather, and kept in good condition by feeding from the barn, as the feed fails in the pasture or field. An animal in good flesh can be wintered much cheaper than a poor one, and it will be far more productive in labor, milk, or as a mother; and when it becomes poor late in fall, it can be put in good condition, in the cold season, only by extra keeping. Animals in good flesh endure the cold much better than lean ones, and they are less liable to diseases.

Fuel.—Farmers should prepare sufficient fuel in the fall and winter to last them through the season, as it is very unpleasant, and a serious disadvantage, to leave other work in the busy seasons of spring or summer to prepare fuel. Green or damp wood split in November, and exposed to sun and air, will become very much improved for winter use. There is a great loss, both of fuel and time, in using green wood.

Vegetables of every description should be secured against frost. Cabbages and turnips may remain out late, as they keep better in the field than in the cellar. If gathered early, they shrivel and lose their good qualities. They will endure severe frosts without injury. But be cautious and secure them in season, lest the ground freeze, and then storms and perhaps snow succeed, and winter sets in without an opportunity to secure them. In the northern parts of New England, these vegetables should be secured early in November, in this latitude by the middle or 20th of this month.

FRUIT CONVENTIONS.

The first general fruit convention held in this country was that held at Buffalo, September, 1848, called the "North American Pomological Convention." Another and separate convention was held in the city of New York, in October, called the "American Congress of Fruit-Growers." At the late meeting of the former convention at Syracuse, N. Y., a committee was appointed to confer with the latter association, at their recent meeting, with a view of forming a union of the two, which desirable purpose was effected, under the name of "American Pomological Congress." The next annual meeting will be held in Cincinnati.

WRINGING THE GRAPE-VINE.

A friend showed some very fine Isabella grapes to us a few weeks ago, that were larger than usual, both in bunch and berry, which he said were produced by girdling or wringing the vine. About the time the fruit sets, he takes from the vine a wring of the bark, about an inch in length. This prevents the return of the sap in the bark, and it is applied to the nourishment of that branch, and the fruit is not only larger, but it ripens considerably earlier.

In the fall, the extending bark, on each side the wring, becomes nearly united. If it does not unite, all the vine above the wring will die. This mode would be well adapted to cane pruning; the girdled vines would be cut out in fan pruning.

THE WHEAT CROP OF TEXAS.

We are sorry to learn from the Houston (Texas) Register, that the wheat crop of the north-eastern counties has almost entirely failed, owing to the frost in the spring, and the wet weather. In most of the counties on the Upper Trinity, scarcely five bushels have been raised per acre this year. The crops in those counties generally average twenty-five bushels. In Denton, Dallas, and Collin counties, the crops will scarcely average four bushels an acre. The crops in the Red River counties will scarcely exceed ten bushels. Fortunately, however, the corn crop in those counties is excellent this season, and there will be no scarcity of breadstuffs. — *North Am. Farmer.*

POTATOES.

From year to year, we have carefully chronicled the appearance of the potato crop as it approached the season of maturity. We have this year made many inquiries of our farmers, and they uniformly state that the tubers of this crop are more numerous and agreeable than at any time since the peculiar decay, which has of late years proved so destructive, first began, and no more signs of unsoundness were exhibited than were known in the "palmiest" and mealiest days of this valuable esculent. For many years, we have had extremely wet weather when the potato was in the most critical period of its growth. This had undoubtedly contributed very greatly to their decay, if it had not been the cause. This year, the weather has not been particularly favorable — the roots having never been more than sufficiently moistened. We apprehend this is the true reason of the change, although, from the universality of the former loss, it may be fully inferred that the disease

had its origin in some unknown atmospheric phenomena. Hereafter, the year of the cholera will probably be remembered as the year when this crop recovered its ancient vigor and excellence. — *Buffalo Com. Adv.*

POINTS OF THE HORSE.

A point of great importance in the fore-leg of a horse, is the proper setting of the arm, which should be strong, muscular, and long. By the length of this part in the hare, added to the obliquity of the shoulder, she can extend her fore-parts farther than any other animal of her size; in fact, she strikes nearly as far as the greyhound that pursues her, by the help of this lever. The proper position of the arm of the horse, however, is the result of an oblique shoulder. When issuing from an upright shoulder, the elbow-joint, the centre of motion here, will be inclined inward; the horse will be what is termed *pinned in his elbows*, which causes his legs to fall powerless behind his body. A full and swelling fore-arm is one of the most valuable points in a horse, for whatever purpose he may be required.

If sportsmen were to see the knee of a horse dissected, they would pay more attention to the form and substance of it than they generally do. It is a very complicated joint, but so beautifully constructed that it is seldom subject to internal injury. Its width and breadth, however, are great recommendations, as admitting space for the attachment of muscles, and for the accumulation of ligamentous expansions and bands, greatly conducive to strength. The shank or cannon-bone can scarcely be too short. It should be flat, with the back sinews strong, detached, and well braced. This constitutes what is called a *wiry leg*. Round legs are almost sure to fail.

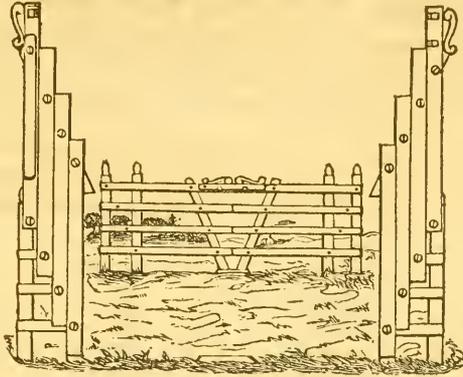
As to the size of a horse, it may be remarked that no very large animal has strength in proportion to its size. That the horse has not, the pony affords proof, if any other were wanting. There have been many instances of horses, little more than fourteen hands high, being equal to the speed of hounds over the stoniest counties in England; for example, Mr. William Coke's *Pony*, as he was called, many years celebrated in Leicestershire. — *Abridged from an Essay on the Horse.*

HOW TO SUBDUE A VICIOUS HORSE.

A correspondent of the New York Commercial gives the following account of the method adopted by an officer in the United States service, lately returned from Mexico, to subdue a horse who would not allow his feet to be handled for the purpose of shoeing:—

"He took a cord about the size of a common bed cord, put it in the mouth of the horse like a bit, and tied it tightly on the top of the animal's head, passing his left ear under the string, not painfully tight, but tight enough to keep the ear down, and the cord in its place. This done, he patted the horse gently on the side of his head, and commanded him to follow; and instantly the horse obeyed, perfectly subdued, and as gentle and obedient as a well-trained dog; suffering his feet to be lifted with entire impunity, and acting in all respects like an old stager. That simple string thus tied made him at once as docile and obedient as any one could desire. The gentleman who thus furnished this exceedingly simple means of subduing a very dangerous propensity, intimated that it is practised in Mexico and South America in the management of wild horses."

The flea jumps two hundred times its own length, which is equal to a quarter of a mile for a man.



SMITH'S VERTICAL GATE.

[The cut represents a large gate open, and a smaller one shut.]

The attention of the public is requested to the above gate, recently invented and patented by Lorenzo Smith, Easton, Mass. This gate *does not swing*, but opens *vertically* by a parallel movement of the rails. Its superiority to the gate in common use may be readily seen. As it does not swing, there can be *no sagging*; thus avoiding a great objection to the swing gate. It requires no ground to swing upon; consequently it can be opened or shut while teams, carts, or carriages, are standing close to it, or with a snow bank on both sides of it. It is opened and shut much quicker than the ordinary gate, and a man on horseback can open it without alighting. For very heavy gates it is designed to have weights attached to the ends of the rails, to assist in raising them; but gates of ordinary size do not require weights. This gate is more especially intended for carriage ways, but is admirably calculated for the doors of stables, and other places where the common gate cannot be used, and also may be made *single*, for footpaths and narrow passages. It costs no more than the swing gate, (including the posts,) and is less liable to get out of order, and more easily repaired, if repairs are needed. The practical operation of the Vertical Gate has been thoroughly tested, and, so far as known, meets with universal favor.

A model of this gate may be seen in the room adjoining the office of the New England Farmer.

REVIEW OF THE WOOL MARKET

FOR OCTOBER.

We copy the following review of the wool market from the Wool-Grower. The editor, Mr. Peters, keeps an extensive wool depot at Buffalo, N. Y., which affords him peculiar advantages for information on this subject.

The quantity of wool going forward is so small that the eastern markets are not sensibly affected by the receipts. The main portion of the clip of 1849 has long since gone forward, and is held by a small number of dealers in Boston, New York, and Philadelphia. The largest quantity is in New York. In Philadelphia there is considerable fine wool, principally from the western parts of Pennsylvania. Indeed, the bulk of the wool now in market is of the finer grades. Coarse and medium wools are nearly out of the market, and still the demand is far from being satisfied.

Manufacturers have been in the market during the month, and have bought, to a moderate extent, at rates a shade higher than those quoted for September. They are, however, but poorly supplied, and at best will find much difficulty in keeping their mills in motion till the next clip, even if disposed to do so. Many, however, will run with the least possible quantity that will keep their hands together. The high price of stock, and the low price of fabric, furnish no inducement for very rapid production. The prospect ahead for them is not as cheering as it ought to be to insure the farmer a fair price for his wool, especially the finer grades. A few companies are making money, but a large majority of the woollen manufacturers, if not losing, are not making a fair interest on their investment. A modification of the tariff, so as to charge specific duties instead of *ad valorem*, would furnish the only remedy; and that should be done. A little more competency in the proper department of our custom-house would furnish much more protection than they now get, and our revenue would be very materially benefited.

Pulled wool is now in demand, and the inquiry active at full rates. We have orders to purchase any quantity, at from 25 to 33 cents, according to quality and condition. Pelts are eagerly sought for, and find a ready sale at full rates. A contract has been made in Chatauque county, for 17,000, at 62½ cents all around.

A larger number of sheep will be slaughtered this autumn and winter than for many years past.

While upon the subject of pelts, we would remind our friends that we receive, store, and sell them upon commission, and should feel obliged for their favors.

Sales have been made during the past month at the depot, of No. 1, at 38 cents, and No. 2 at 36 cents. The lower numbers are worth from 27 to 31 cents.

HOVEN OR SWOLLEN CATTLE.

The *Giornale Agrario Toscano* communicates a remedy against the dangerous effects to which cattle are liable from too free feeding on clover, and some other vegetables of similar qualities. It consists in a solution of ammonia, to be given in a quantity of water sufficient to enable the animal to swallow it with ease. One glass is generally found effectual. Should it be found otherwise, a second is to be given at the expiration of half an hour. Ample testimony is adduced to show the value of the prescription.

For the New England Farmer.

AMOUNT OF PRODUCE FROM COWS.

An analysis of facts relating to the produce of butter on certain farms in the county of Essex, in the summer of 1849, taken from the statements of the occupants, as presented to the committee on the dairy, for the premiums offered by the Essex County Agricultural Society. The several claimants were required to state distinctly their produce for the month of June; also for the four months next following the 20th of May.

Names.	Residence.	Cows.	June	Four Months	Total in Four
			Average to a Cow.	Average to a Cow.	Months.
John Stone,.....	Marblehead,	4	45 lbs.	155 lbs.	620 lbs.
Daniel Putnam,.....	Danvers,	6	34 "	124 "	744 "
Elijah Pope,.....	Danvers,	4	28 "	111 "	444 "
Charles P. Preston,.....	Danvers,	7	30 "	112 "	784 "
George Pearson,.....	Saugus,	6	30 "	109 "	654 "
Nathaniel Felton,.....	Danvers,	8	32 "	110½ "	884 "
Jonathan Berry,.....	Middleton,	8	30 "	99 "	790 "
Duncan M'Naughton,.....	Byfield,	5	25 "	98 "	490 "
John Preston,.....	Danvers,	4	26 "	92 "	366 "
Nathan D. Hawks,.....	Lynnfield,	4	25 "	85 "	340 "
		56	308 lbs. ÷ by 10 = 30.8 " the average.	1095 lbs. ÷ by 10 = 109.5 " in 123 days.	6116 lbs. ÷ by 56 = 109¼ lbs. the average.

Most of the above facts are distinctly set forth in the statements. Those which are not, are estimated from those that are. They show what may be expected, from our well-managed dairies, in such seasons as the past, where the feed for the months of August and September was materially cut off by the drought. If you think them worthy a position in your record of New England farming, you have them, with my confidence in their accuracy.

DANVERS, Oct. 25, 1849.

Very truly yours,

J. W. P.

For the New England Farmer.

FARMING WILL TRIUMPH.

When the year nineteen hundred shall have been borne on the rapid car of time, and proclaimed in our midst, what an advancement will have been made in the arts and sciences, and the various departments of agriculture, if new inventions and improvements continue to be put forth to the world as they have been for the last half century! Who of us can imagine the improvements that will be made in the cause of agriculture during the next fifty years? Judging from the past, when the year nineteen hundred shall have dawned upon us, the profession of agriculture will be as much coveted and sought after, as it was once considered low and disgraceful. Time was when farming was thought (especially by the young) to be a very unpopular and low business. How many a young man has forsaken a comfortable home and farm, and apprenticed himself to some village grocer, because, forsooth, farming was degrading! But a new era is dawning upon this western continent; people are beginning to open their eyes to their true interests, and to the interests of the whole country.

While great improvements have been made, and are still making, in the arts and sciences, the cause of Agriculture has not been left in the rear. With giant force she has ploughed her way through, and with eagle wings she is fast soaring towards the summit of her glory. There was a time when the farmer would grow crops on his New England soil so long as his land would yield him an equivalent for his labors, without the use of manure or compost, and then "pull up stakes," and turn his face with the emigrant towards the western wilderness. A different state of things is being brought about. The soil is cared for, and every waste material is turned to

account. Thus the land is enriched and kept in a productive state, and rewarding the husbandman with an abundant harvest for his labors. Farming is not now confined to the mere ignorant classes of society, as men of talents and wealth have become engaged in it, thus showing to the world that to be a tiller of the soil is no mean occupation.

Since the existence of the numerous machinations of mankind to obtain money without a resort to manual labor, the honest yeoman, by pursuing his honorable occupation, in earning his bread by the sweat of his brow, has won for himself unfading laurels, and is receiving the attention and respect of all classes of the community. The time will come, and that too before the nineteenth century shall have been numbered with the past, when farming will become the leading occupation of the day, and those who are now leaving the plough for the city will be as eager to return to the plough, and enjoy the comforts of the farmer's life in the country, as they were anxious to leave it. These are the writer's humble predictions.

A. TODD.

SMITHFIELD, R. I.

For the New England Farmer.

STRAW HENS' NESTS.

MR. COLE. Dear Sir: Perhaps it is as important that we should have good nests for hens, as it is that we should have good hens. I have sent one to Ruggles, Nourse, Mason, & Co., which to me was a curiosity, and more than that, a great convenience; and as there has been much of interest published of late concerning fowls, it may not be wholly useless to say a word about what I call an Irish hens' nest. I think no one would be without them if their convenience was once tested. They will cost about

seventy-five cents each, and probably will last fifty years. They can be hung up by the side of the hen-house, or placed where you wish, and the hens will follow them, after they have become acquainted with them, which will be very soon. They can be easily kept clean by scalding and changing the hay that is put into them for their accommodation. When a hen wishes to set, turn the nest round, the door to the wall, until she is weaned from it a day or two, and then turn it back again, and it will soon be occupied as a most choice deposit for more eggs. I have used them for the past year, and find myself and my hens alike pleased with them. Do with this as you please.

Yours respectfully,

OTIS BRIGHAM.

WESTBOROUGH, Oct. 23, 1849.

EDITORIAL REMARKS.—The straw nest is very curious, and ingeniously constructed, affording peculiar advantages, as hens seek for retirement when they are laying or sitting; and as it is adapted to suspension, the hen on her nest may be kept free from disturbance, or the attacks of various predatory animals. This nest should have a conspicuous place in the poultry exhibition.

—◆—
For the *New England Farmer*.

MANURING NURSERIES, &c.

FRIEND COLE: Being in conversation with a nurseryman relative to the business, he informed me of a new method he had made trial of for manuring his grounds, and at the same time to obviate the necessity of hoeing, which had been a saving of some thirty dollars the present season. It was simply to cover the ground three or four inches thick with swamp hay, worth about five dollars per ton. This, he said, very nearly kept down all weeds; but if here and there one found its way through, it was an easy matter to destroy it, as the ground, of course, would be light under such treatment.

In most or all locations, it would be necessary to remove the litter in the fall, to prevent the depredations of the mice, and by returning the same partly-rotted hay or straw in the spring, would the second season have decomposed sufficiently to incorporate with the earth, by using the cultivator between the rows. If thou hast had any knowledge of this method of nursery culture, wilt thou be so kind as to publish thy views upon it in the *New England Farmer*, and oblige thy friend,

D. TABOR.

VASSALBORO', 9th Mo., 1849.

EDITORIAL REMARKS.—We have occasionally covered land among nursery trees, and around standard trees, to keep the soil light, and to guard against drought by retaining moisture; and this mode is attended with excellent success. In many cases, in hot, dry summers, it saves newly-transplanted trees from destruction; and it often produces a large crop of the finest fruit, where, otherwise, there would be a total failure from extreme heat and drought.

Mr. Tudor has raised, this season, at Nahant, — naturally a most unfavorable location, both from the light, sandy soil, and exposure to salt spray, — the largest pears of some varieties that we ever saw. A friend, who visited his fruit-garden in the heat of summer, remarks that his great success consists in *mulching*. A basin of earth is formed around the

trees, into which is put a deep layer of oak leaves, which retains the moisture, on the same principle that it is retained around forest trees in their natural position. So this skilful operation of art produces the same effect as Nature herself, when left free from the improvident hand of the cultivator.

Hay, straw, sea-weed, common weeds, leaves, shavings, partially decomposed tan, charcoal-dust, manure of various kinds, and many other substances, are good for mulching; and as they decay they form a valuable manure. In many cases, these materials are worth for manure all that they cost; so that the expense of mulching, or covering the land, would cost nothing.

Raspberries and gooseberries succeed far better where the land is covered. We have seen a piece of raspberries, that was well covered with litter, perfectly free from weeds, without hoeing; and it yielded over a quart of fruit to the hill or stool, which was four feet apart, making about twenty quarts to the square rod, — one hundred bushels, or thirty-two hundred quarts, to the acre, — which at the usual price of twenty-five cents per quart, amounts to eight hundred dollars.

Covering land not only keeps the soil light and moist, but it keeps up an equilibrium of temperature, conducing to large and excellent crops, and the healthy condition of trees, which, in our climate, without this conservative measure, are liable to injury, diseases, and death, by the great extremes of heat and cold, wet and drought.

As to the economy of covering land, much depends on circumstances, of which every cultivator must judge for himself. Generally it is attended with much expense, and a very profitable crop must be obtained in order to justify so liberal an expenditure.

—◆—
For the *New England Farmer*.

HISTORY OF AGRICULTURE, NO. II.

MR. EDITOR: The aboriginal inhabitants of Greece lost all the primeval arts of agriculture, and lived in a most degraded manner, and fed upon wild fruits, acorns, &c.; but by their early communication with the Egyptians, they were led to the cultivation of the ground, and they probably borrowed their arts and early principles of science from them. Agriculture was held in high esteem in the time of Homer, so much so that one of the ancient kings laid aside the robes of royalty that he might cultivate his fields. Hesiod, who lived about the time of Homer, devoted a whole poem to the subject of agriculture.

Xenophon wrote a treatise on rural affairs some time after; but of other writings among the Greeks on the subject of agriculture, but little remains, except some scattered notices on the subject by several authors, till the time of Varro, who informs us that, in his time, there were not less than fifty authors that might be consulted on the subject of agriculture and rural affairs. The Phœnicians and Chaldeans held husbandry in the highest estimation. The Carthaginians, who descended from the Phœnicians, carried it to great perfection; they have several writers on the subject, among whom was Mago, one of their greatest generals. He is said to have written no less than twenty-eight books; and it is probable that, under these auspices, agriculture flourished in

Sicily, which afterwards became the granary of Rome.

Sacred history informs us that the Jews applied themselves to the cultivation of the soil, immediately after they came into the possession of the land of Canaan, each family having their territory allotted to them. By the frequent allusions to this subject in different parts of the Old Testament, we may safely infer that husbandry formed their principal occupation. Many of the laws of Moses have for their object the regulation of their flocks and herds, their pastures and fields. David cultivated his own fields, having storehouses for his corn and wine, with officers to oversee the same. Elisha was in the field, with twelve yoke of oxen, when Elijah found him. There are also frequent allusions to husbandry business in different parts of the sacred writings, such as the planting of vineyards, threshing, sifting, and winnowing corn; with many other allusions to farming business, all having the same import, going to show that husbandry was their leading occupation.

ROCKINGHAM.

LABOR WELL APPLIED IS PRODUCTIVE OF PROFIT.

Farmers should ever bear in mind that "well-directed labor" will insure its reward. Of all classes of men, there is none upon whom this truth needs to be enforced more than the farmer. How many of our farmers are year after year toiling on, overwhelmed with their business on an immense estate, and at the close of the year the accounts are about balanced, and again the same toil and vexation must be renewed! If rightly-directed effort had been put forth, no more land farmed than could be done to perfection, what a saving of labor, what an increase of profit, what a reward in every point of view, would be received! In travelling through the best farming districts of this country, we often find illustrations of this truth most striking.

I have in my eye a farm of medium size, which, a few years since, was any thing but neat and in order, and which gave sad indications that labor had not been "well applied." But a change has come over this scene. A new occupant takes possession, fixed in his principles — determined that he would carry out this great maxim, on which depends the prosperity and success of the farmer, that "What is worth doing, is worth doing well." Now, how soon the farm begins to assume a new appearance! The fences are repaired, the land is drained where needed, the buildings are neatly repaired and arranged; manures are obtained best suited to the soil, and crops which are adapted to this region; a new and improved stock of cattle, sheep, and swine are secured, and in short every thing characteristic of the good farmer appears year after year, under the direction of him who knows how to *apply labor*. Instead of having, at the end of the year, to resort to loans to make up the deficiencies, this same farm yields a return that gladdens the heart of the farmer. As years roll on, each succeeding one finds a larger balance in favor of well-directed labor; and now, in addition to the ordinary appendages of a farm, there is reared, out of the profits of this well-regulated concern, a neat and tasty cottage, in the midst of shrubbery the most tasty and luxuriant — all the work of him who started with the determination to do all things well. And this is not all: as the well-regulated expense book is balanced, a profit which would gladden even the hearts of some of our bankers on the capital invested, is found on hand, to be applied as may best conduce to the comfort and welfare of an interesting family. There is no complaint of means to educate the children. They are brought up practically to appreciate

the maxim that "What is worth doing, is worth doing well," and their education prepares them to carry out in all the varied scenes of life this all-important but too little practised truth.

Let me then urge upon the farmers who read this paper — and I am glad to know they are many, and among the most intelligent in our land — to put in practice, if they have not already done so, this simple but effectual method of farm labor, which brings with it the most abundant reward, and without which they will in vain struggle on, never securing the end of their toil. Order is Heaven's first law, and let it be yours in every thing relating to your farm. Remember you belong to a noble profession, and one that is destined to exert a mighty influence on the destinies of a world. As one man, then, let the American farmers adopt as their motto, "*All things relating to my farm shall be well done,*" — and no more should be undertaken than can be thus done, — and soon he will be found to occupy that exalted position that will cause his influence to be felt the world over. Surely it cannot be necessary to urge upon the enlightened, the intelligent, the hard-working American farmer, further considerations in support of a principle that must, on a moment's reflection, commend itself to every right-minded, reflecting man.

In the London Gardener's Chronicle I find the following anecdote which the celebrated Robert Bakewell used frequently to relate — he whose name is familiar to almost every one for his extraordinary success in breeding cattle and sheep, and to whom, probably, Great Britain, as well as this country, owes as much as to any one individual, for that system of breeding which has secured the choice breeds of animals which are now to be found. It is to our purpose, as it gives the history of an old farmer, and one of olden times too, who was renewed by adopting the principle laid down as the heading of our article — "Labor well applied is productive of profit."

Mr. Bakewell said, "A farmer who owned and occupied one thousand acres of land had three daughters. When his eldest daughter married, he gave her one quarter of his land for her portion, but no money; and he found, by a little more speed, and a little better management, the produce of his farm did not decrease. When his second daughter married, he gave her one third of the remaining land for her portion, but no money. He then set to work, and began to grub up his furze and fern, and ploughed up what he called his poor, dry, furze land, even where the furze covered, in some closes, nearly half the land. After giving half his land to two of his daughters, to his great surprise he found that the produce increased; he made more money, because his new broken up furze land brought excessive crops, and at the same time he farmed the whole of his land better, for he employed three times more laborers upon it; he rose two hours sooner in the morning; had no more dead fallows once in three years; instead of which he got two green crops in one year, and ate them upon the land. A garden never requires a dead fallow. But the great advantage was, that he had got the same money to manage five hundred acres as he had to manage one thousand acres; therefore, he laid out double the money upon the land.

"When his third and last daughter married, he gave her two hundred and fifty acres, or half that remained, for her portion, and no money. He then found that he had the same money to farm one quarter of the land as he had at first to farm the whole. He began to ask himself a few questions, and set his wits to work how he was to make as much of two hundred and fifty as he had done of one thousand acres. He then paid off his bailiff, (who weighed twenty stone,) rose with the larks in the long days, and went to bed with the lambs; he got as much more work

done for his money; he made his servants, laborers, and horses move faster; broke them from their snail's pace; and found that the eye of the master quickened the pace of the servant. He saw the beginning and ending of every thing; and to his servants and laborers, instead of saying, 'Go and do it,' he said to them, 'Let us go and do it, my boys.' Between *come* and *go* he soon found a great difference. He grubbed up the whole of his furze and his ferns, ploughed the whole of his poor grass land up, and converted a great deal of corn into meat for the sake of the manure, and preserved his black water, (the essence of manure;) cut his hedges down, which had not been plashed for forty or fifty years; straightened his zigzag fences; cut his watercourses straight, and gained a great deal of land by doing so; made drains and sluices, and irrigated all the lands he could; he grubbed up many of his hedges and borders covered with bushes, in some places from ten to fourteen yards in width, and threw three or more closes into one. He found out that instead of growing white-thorn hedges and haws to feed foreign birds in winter, he could grow food for man instead of birds.

"After all this improvement, he grew more and made of two hundred and fifty acres than he did from one thousand; at the same time he found out that half of England at that time was not cultivated, from the want of means to cultivate it with. I let him rams, and sold him long-horned bulls," said Mr. Bakewell, "and told him the real value of labor, both in doors and out, and what ought to be done with a certain number of men, oxen, and horses within a given time. I taught him to sow less and plough better; that there were limits and measures to all things; and that the husbandman ought to be stronger than the farmer. I told him how to make hot land colder and cold land hotter, light land stiffer and stiff land lighter. I soon caused him to shake off his old prejudices, and I grafted new ideas in their places. I told him not to breed inferior cattle, sheep, or horses, but the best of each kind, for the best consume no more than the worst. My friend became a new man in his old age, and died rich."

Is it not true that "labor well applied is productive of profit?" — *Genesee Farmer*.

THE SPIRIT OF IMPROVEMENT.

Never, probably, at any previous period, has there been manifested so universal a disposition and desire of improvement in the various branches of science, and in the different manufacturing and mechanical arts, as at present. Our colleges and seminaries of learning are emulously vying with each other in granting every facility in the education and instruction of the youth committed to their care. Our institutions for the promotion of practical science are exerting themselves to the utmost for the advancement of this valuable and important object. Men of intellect, and genius and skill, have embarked in these noble and praiseworthy undertakings, and from the success which they have already experienced, are encouraged to persevere and to redouble their exertions. Even our farmers and agriculturists have at last begun to feel the general impetus which has been given to the human mind, and think it necessary to do something in the way of improvement in the art of husbandry. Horticulture, in the last few years, has progressed with rapid strides, both to the astonishment and delight of those who have devoted to it their attention. And agriculture now is calling loudly for information and the testimony of facts, in order to found a profitable and approved system, for the proper cultivation of the earth. Legislatures are beginning to take this subject into consideration, and we look forward to the time, when among the hardy

yeomen of the land we shall find as much intelligence, with regard to soil, manures, crops, implements, &c., relating to their particular pursuit, and the mode of treating and managing them to the best advantage, as we have already the evidence of proficiency in other departments, where man has already attained almost to perfection. That in the manner of cultivating there is great room for improvement, seems now to be universally conceded. And the success which has attended the efforts of some of our most enterprising farmers, of late years, is operating powerfully as an encouragement to similar and more extended endeavors with others. Nor does the influence seem to be limited to any particular class, or to any section of country. It appears to be widespread and universal, pervading the entire length and breadth of the land, though more sensibly felt where it is, of course, most needed, or other places that are most thickly settled, and most accessible to markets. The eastern section, our own state, the southern district, and even the far west, where land can be almost obtained for the asking, and where the best of land is to be found, there is instituted the same inquiry for practical knowledge, and manifested the same desire of improvement. So universal, in fact, is this spirit, that it must necessarily be productive of the most important and astonishing results. — *Farmer and Mechanic*.

THE CANADA GOOSE.

The Canadian or American wild goose, (*Anser Canadensis*;) and the Chinese goose, (*A. cygnoides*;) occupy, as a writer observes, "a sort of debatable ground," so that naturalists have been in doubt as to which family they should be referred; and hence some have applied to them the name of *suan geese*.

The Canadian goose is extensively known. It is a migratory bird, and in its semiannual journeys, traverses the northern part of the continent almost from the equator to the pole; and there are but few of the inhabitants of this country that are not familiar with its shrill and animating cry. Its autumnal flight lasts from the middle of August to the middle of October, and the vernal flight from the middle of April to the middle of May. Various stops are made, however, at convenient points, between the winter and summer localities.

It breeds in its wild state only at the north. Its favorite resort is the coast of Labrador, and the region about Hudson's Bay; though Hearne speaks of having seen great numbers within the Arctic circle, pushing their way still northward.

To the inhabitants of the regions where it breeds, the bird is regarded as an important source of subsistence. Its arrival in spring is anxiously looked for, and the Indians denominate the month the *goose moon*. It is said that the carcasses of these birds are dealt out as rations to the men employed by the Hudson's Bay Company. "One goose, which when fat weighs about nine pounds, is the daily ration to one of the company's servants during the season, and is reckoned equivalent to two snow geese, (*A. Hyperborea*;) or three ducks, or eight pounds of buffalo and moose meat, or two pounds of pemmican, or a pint of maize and four ounces of suct." [Richardson.] Those which are killed after the weather becomes cool in the fall, are frozen and kept in the feathers for a winter stock of provisions.

Richardson describes the habits of these geese in his *Fauna Boreali-Americana*, as follows:—

"About three weeks after their first appearance, the Canada geese disperse in pairs through the country, between the 50th and 67th parallels, to breed, retiring at the same time from the shores of Hudson's Bay. In July, after the young birds are hatched, the parents moult, and vast numbers are killed in the

ivers and lakes, when, from the loss of their quill-feathers, they are unable to fly. When chased by a canoe, and obliged to dive frequently, they soon become fatigued, and make for the shore with the intention of hiding themselves; but as they are not fleet, they fall an easy prey to their pursuers. In autumn they again assemble in flocks on the shores of Hudson's Bay, for three weeks or a month previous to their departure southwards."

The Canada goose has been domesticated, and is not an uncommon inhabitant of the poultry-yard, either in this country or in England. It does not breed till it is three years old. It is somewhat larger than the common goose, and its flesh is better; it has also more feathers and of better quality. It is very hardy, and rears its young with much certainty. It is believed to be quite as profitable as the common kind; and considering its beauty and usefulness, it would seem desirable that it should be multiplied in a domestic state.

The Canada goose will breed with the common, and also with the Chinese goose; but the hybrid offspring are, in all cases, incapable of procreation. Some poultrymen, however, make it an object to breed mongrels, as they are called. They grow rapidly, and acquire a larger size than either of their parents, and their flesh is of so fine a flavor, and so highly prized, that it readily commands a higher price in the market. The finest mongrels are produced between the wild and the Bremen, and the wild and the Chinese geese.

It is stated on the authority of Buffon, that the Canadian goose, kept in a domestic state in France, was found to interbreed familiarly with the swans. Have any attempts been made to cause this goose to breed with the American swan, and with what success?

It may be remarked that the wild goose (*A. Palustris*) of Europe is the parent of our common domestic goose, and, of course, a distinct species from the Canadian goose. — *Albany Cultivator*.

THE SEASON.

The season for gathering the fruits of the earth is about closed. Spring and summer, seed time and harvest, the opening flower and mature fruit have come and gone. The genial sun and attendant showers have refreshed and invigorated the earth, and in return, it has yielded its fruits with an unstinted and liberal hand; the five talents left in his possession have gained other five, and like a good banker, when called for, cheerfully restored them.

We congratulate the farmers of Berkshire in the success which has attended their labors and investments the past season. The task, though laborious, is healthful, and in many cases lucrative; and the consciousness of having derived our profits from a source which has made none the poorer, — from a mine which unworked would work ruin to the world; from a bank which unopened would yield no dividends, — affords a source of pleasure known only to him whose hand has aided in the work. Judging from observation and report, we are safe in saying that the products, (taken as a whole,) the past season, have exceeded those of any preceding year. There has been more than a medium yield of every crop except apples, (which has proved almost a blank.) Grass, though not so great a growth, by growing gradually as it did, occasioned by the dry weather, will be found to contain more nourishment than some of the profuse growths of former years; while potatoes and grain of all kinds have yielded an abundant return for the investment made, and are bringing prices which will abundantly repay the farmer for the money and labor expended. — *Berkshire Cultivator*.

THE HORSE KNOWN BY HIS EARS.

The size, position, and motion of the ears of a horse are important points. Those rather small than large, placed not too far apart, erect and quick in motion, indicate both breeding and spirit; and if a horse is in the frequent habit of carrying one ear forward, and the other backward, and especially if he does so on a journey, he will generally possess both spirit and continuance. The stretching of the ears in contrary directions shows that he is attentive to every thing that is passing around him; and while he is doing this, he cannot be much fatigued, nor likely soon to become so.

It has been remarked that few horses sleep without pointing one ear forward and the other backward, in order that they may receive notice of the approach of objects in any direction. When horses or mules march in company, at night, those in front direct their ears forward; those in the rear direct them backward; and those in the middle of the train turn them laterally or crosswise — the whole seeming thus to be actuated by one feeling, which watches their general safety.

The ear of the horse is one of the most beautiful parts about him, and by few things is the temper more surely indicated than by its motion. The ear is more intelligible even than the eye, and a person accustomed to the horse, can tell, by the expressive motion of that organ, almost all that he thinks or means. When a horse lays his ears flat back on his neck, he most assuredly is meditating mischief, and the bystander should be aware of his heels or his teeth. In play, the ears will be laid back, but not so decidedly nor so long. A quick change in their position, and more particularly the expression of the eye at the time, will distinguish between playfulness and vice.

The hearing of the horse is remarkably acute. A thousand vibrations of the air, too slight to make any impression on the human ear, are readily perceived by him. It is well known to every hunting man, that the cry of hounds will be recognized by the horse, and his ears will be erect, and he will be all spirit and impatience, a considerable time before the rider is conscious of the least sound. — *The Horse and his Rider*.

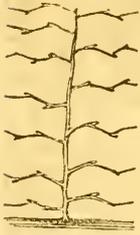
ASHES AND LIME FOR PLUM-TREES.

FRIEND REED: I have in my garden a plum-tree, which, for three or four years past, has borne very full; but not till this year has one of the plums been sound.

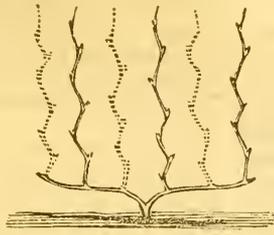
They all were bored, or rotted, and fell from the tree before they were ripe. Two or three other plum-trees, of a different kind, which have borne less, shared the same fate. Last year, a young tree, which stood near an ash-leach, and which had never borne before, produced a solitary plum, and that was sound. This suggested the idea, that its preservation was owing to the ashes which had been scattered around the roots of the tree. Following out the hint thus given, I last spring spread ashes and lime, with manure and salt, around all my trees. The result has been, that they all have borne, this year, more than usual, and most of the fruit has been sound. This result I ascribe, in part, to the ashes and lime. The same, I find, is recommended by "An Old Digger." And the conclusion is obvious, that alkali enough will destroy the young insects as they lie burrowed in the ground or attempt to emerge from it in the spring. It in this way sound plums can be raised, it will be found a very easy way. Let some of your readers try the experiment and note the result.

II. GOODWIN.

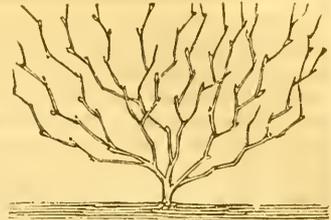
S. CANAAN, CT., Oct. 1849.
— *Berkshire Cultivator*.



Spur Training.



Cane Training.



Fan Training.

PRUNING AND TRAINING GRAPE-VINES.

In this section of the country, grapes do not receive the attention that they deserve. One reason for this is, want of knowledge in their management. Most foreigners in this country follow the usual practice in Europe, and cut back the vines too much, leaving only a few eyes; and in the summer, they often cut back the growing shoot close to the fruit, which prevents full growth and maturity.

On the contrary, cultivators who have had but little experience in this business, neglect pruning, sometimes for years, until the vines become exhausted in the production of small, worthless fruit, and a superabundance of wood, forming a dense mass, without sufficient air, light, or heat to perfect fruit, or form strong, healthy, and productive vines.

In cultivating our native grapes, — and no others are adapted to out-door culture, — these extremes should be avoided. After the fall of the leaf, and before extremely cold weather, grape-vines should be thoroughly pruned. If many spurs are left on a vine, they should be pruned back; leaving two, three, or four joints of the present year's growth. The quantity of wood left should depend on the room and the strength of the vines. Where the spurs are close together, cut out every other one.

In fan training, and other modes where vines have a plenty of room, it is well to leave several feet of the last growth; and in cane pruning, vines are often left six, eight, or ten feet long, of the present season's growth. So much depends on various circumstances, which the operator will take into consideration, and exercise his judgment, that definite rules cannot be given.

Almost every cultivator, who has not much experience in this business, finds, in the summer, that he has far too much fruit and too many vines. So he goes to work, at that season, and mutilates the vines, and thins out the fruit; but the vines become checked by the close pruning at a wrong season, the wood ripens earlier than usual, and the fruit fails. The only way to guard against the evil is, to prune thoroughly late in fall, or early in winter. If it be done in spring, the vines are liable to bleed.

There is a difference in our native grapes as to the amount of pruning that is necessary. Some are moderate growers, and will bear good crops with but very little pruning; others grow very vigorously, and must be pruned closely, else there will be too much vine, and more fruit than will grow and ripen well.

There are various modes of training. The spur system is the most common. The spurs are cut back every fall, and a part of the spurs should be cut out every season, and new ones trained in their place.

In the cane system, the vines represented by the dotted lines are those that have borne fruit this season; and they should be cut away this fall, and new ones trained in their places next season. The vines represented by the solid lines, are new ones trained up this season, which will bear fruit next year, and will be cut away in the fall. In this way, by cutting out alternate vines every season, the fruit will be produced on new vines; and it always grows on young shoots from the last year's growth; therefore constant pruning is necessary in order to produce new wood for the production of fruit.

Fan training, upon trellises, is much practised. The vines may be kept short, or extended to a considerable distance, as the cultivator chooses. In the fan system, old vines may be cut out, occasionally, and new ones trained in their stead; or alternate vines may be cut out, as in cane training.

In most vineyards, where particular attention is paid to raising as large crops as possible, the vines are set in rows about six feet apart, and about four feet apart in the rows, and trained to a single stake: we find this the most economical and convenient way.

Grape-vines may be conducted along by walls or fences, or under ground a considerable distance from the root, and then trained on the walls or roofs of buildings. They may be spread out in fan shape, or the cane or spur system may be adopted.

There are various modifications of the systems we have named, and in some cases they are blended. The great object should be to prune so thoroughly late in fall, that there will not be too much vine without pruning the next summer, otherwise than thinning out feeble branches that have no fruit on them, or merely pinching off the new tips of the vigorous branches, to check the growth of the wood, and throw the nourishment which the vines contain into the fruit, to perfect its growth and maturity.

November is a good season for pruning the grape. Early in December will answer very well. But if vines are pruned in winter, and it is generally very cold till spring, so that the ends of the wood cannot season, they will be liable to bleed, as warm weather comes on, the same as vines pruned in spring.

EXHIBITION OF FOWLS.

A few weeks ago, Dr. Bennett, of Plymouth, gave notice that he should show some choice breeds of poultry, at Faneuil Hall Market, on the 15th of November; and he invited others to join in the exhibition. This proposition has been so well received by the public that arrangements are now making to have a large show of fowls of the various excellent breeds; and a convention of poultry breeders and fanciers, and a committee distinguished for their intelligence and attention to the subject, have been appointed, who will sit in judgment upon the exhibition.

We hope that all who have fine fowls will contribute to this exhibition; for it is a subject of deep importance to the public, as poultry and eggs constitute no small part of our substantial food, as well as luxuries, forming numerous excellent dishes, and contributing essentially to the improvement of many others. Statistical accounts of the vast amount, both in quantity and value, of poultry and eggs consumed in some sections, or by some nations, would astonish almost every person, not excepting even the greatest consumers, compared with which, many things, that are regarded as highly important, would dwindle into insignificance.

Come on, then, all who have fine fowls, and aid in this convention, to give due importance to a business that has been too much neglected, and which should rank among the most interesting and valuable in rural affairs. Those who attend as spectators, will, we trust, witness the finest and most extensive display of fowls that they ever beheld. We publish the following from the committee:—

PLYMOUTH, MASS., Oct. 25, 1849.

To Colonel Samuel Jaques, Dr. Eben Wright, John Giles, Esq., Mr. Timothy House, and Mr. H. L. Devereux.

GENTLEMEN: You are aware that I have taken incipient measures to get up and organize a convention of breeders and fanciers of domestic fowls, to be called the "New England Ornithological Association," which, at the suggestion of Mr. Pedder, will, in all probability, establish an annual exhibition for laudable competition in that department; and that I have solicited the coöperation of all interested in the improvement and perfection of such stock. In order to give it respectability, and popular favorable consideration, it will be necessary to have order and fitness in the organization and assemblage. Therefore, suffer me to respectfully request you to act as a "Committee of Supervision," with plenary powers, until discharged or confirmed by the convention. All of which is respectfully submitted by

Yours, respectfully,
J. C. BENNETT.

N. B. In consequence of the exhibition being so late in the season, November 15th, and fearing inclement weather, Messrs. Parker & White have kindly proffered the use of two large eighty feet rooms, (adjacent,) in their agricultural warehouse, No. 10, Gerrish Block, Blackstone Street, Boston, which I have accepted, (on the advice of several ornithologists, who take a lively interest in the convention,) instead of Quincy Market, as at first proposed; which I trust will prove satisfactory to all concerned.

In the replies of the gentlemen to whom the above communication was addressed, they have kindly ex-

pressed their willingness to serve on the committee; and such arrangements have been made that contributors in the exhibition, who send their stock from any considerable distance, may direct it to the store of Messrs. Parker & White, on the days previous, where they will receive proper care and attention.

J. C. B.

In accordance with the above suggestion of Dr. Bennett, the committee would give notice that the first annual exhibition of the "New England Ornithological Association" will take place on the 15th of November inst., at the store of Messrs. Parker & White, No. 10 Gerrish Block, Blackstone Street, Boston, commencing at nine o'clock A. M., to continue through the day.

All those who take an interest in improving the breed of domestic fowls, or who have specimens of choice stock, — imported or otherwise, — are respectfully invited to be present on the above occasion, and to forward their stock in season for exhibition on that day. The committee suggest that contributors of fowls shall send them in compact coops, each labelled with the name of the breeder, class of stock, and age, upon a card attached to each box.

SAMUEL JAQUES,
EBEN WRIGHT,
JOHN GILES,
TIMOTHY HOUSE,
H. L. DEVEREUX, } Committee, &c.

BOSTON, Oct. 29, 1849.

THE BLACKBERRY.

This fruit, when grown in perfection, either wild or in gardens, ranks among the very finest produced in this or any other country. On new lands, it grows wild, and in the finest condition. In this region, it is cultivated to a small extent, and the fruit, which is of the highest character, sells at great prices — sometimes at one dollar per quart. But this enormous price is owing to its great scarcity; yet it will have a good effect in causing the extension of its culture, until it will become as common in gardens as strawberries, raspberries, and other small fruits. We copy the following from the Water Cure Journal, and as we agree with the author in the importance and healthful influence of this luscious fruit, and the great pleasure in rambling among the hedges to collect it.

This exceedingly useful and wholesome fruit is too much neglected. A surprising prejudice prevents families from making use of it for domestic purposes. But we have grown older and wiser, and have learned by experience that the blackberry can only be despised by those who have no taste for the simple, yet delightful, and withal luscious banquet which Nature, in autumn, so amply spreads around. To us there is an indescribable charm in leaving the dusty highway, where the berries are coated in drab, to wander by the hedgerow, whose resplendent bunches hang in rich profusion, inviting the taste by the beauty of the appearance.

We like to renew the joyous feelings of youth, and to allow youngsters to participate in the glorious treat of a day's blackberrying, whenever the opportunity occurs. Year by year, we were wont to wander, with a party of schoolboys, to some favorite spot, where the berries grew luxuriantly on an ancient hedge, long undisturbed by the hedger's bill. Here, with hooked stick, we pulled down the jetty bunches, and filled our baskets with winter store; for our enjoyment did not cease with the day, but before our

mental vision was the prospect of sweets to be enjoyed in the tarts and puddings of future days.

Then, appetite quickened by the fresh air and long walk, came our picnic dinner on the soft grass under the sunny hedge: here, with wholesome refreshment, happy faces, and beautiful scenery before us, we really got much pleasure, as well as profit, from our blackberry excursion. Then followed our ample dessert of the wild berry; and we, as well as our baskets, being filled to our hearts' content, were reminded by the setting sun that it was time to hasten homeward with our gathered treasure.

Will any one who reads this follow our example? Let him lay aside his worldly anxieties, his business cares, his daily occupations, and just try how much simple enjoyment he may procure for himself, how much real gratification he may afford to others, by a day's blackberrying.

But this is scarcely practical enough for our pages: we must now adopt a more humble style.

The blackberry is found growing plentifully in almost every situation: on the high chalk hills or the clayey valley, there it is in profusion.

But when fully exposed to the sun, the flavor of the fruit is much more perfect and of greater sweetness than when growing in shady aspects. It is too common to need description; every body knows it; and perhaps its very commonness makes it neglected.

We have never seen blackberries brought to market except in London; and yet there is no reason why children should not employ their time in gathering them for sale: the money they would fetch would be a little help; and no means, however small, should be neglected by any one, now-a-days, by which the comforts of his family may be increased.

Then, if they are not sold, blackberry puddings may be made for the children; and these, either with or without the addition of a few apples or damsons, are very capital things for a family. They should be made precisely in the same way as gooseberry or currant puddings are usually made.

ADVANTAGES OF RAILROADS.

Hon. E. Everett, in his speech at the Norfolk Cattle Show, made the following remarks on the advantages of railroads to agriculture:—

We were accustomed to view this system as much more intimately connected with our commerce and manufactures than with our agricultural interest. But he believed that it would soon do quite as much for the farmers as for any class, and that, in respect to agriculture, and the real benefit of the country, our net-work of iron roads would be worth more than ten Californias. Another idea struck him in relation to the extension of these railroad facilities. It had long been the complaint that young men in the country were abandoning the places of their birth, and looking into the great cities in search of a livelihood to be gained, if at all, through different means than those to which they had been brought up. This complaint, he must allow, had been but too well founded. But now it was getting to be much more common than it formerly was for a man, so soon as he had acquired a competency, to return to the place of his birth, and build himself a snug little nest in the shade of his ancestral trees. For instance, within a circle of twenty-five miles around Boston, a perfect crop of these little boxes had sprung up, and it was daily increasing in amount. Let but a system of enlightened and judicious agriculture go hand in hand with these increasing facilities of communication with the great marts of trade, and the beneficial effect of a love and relish for pure country enjoyments and employments would be more and more developed.

EXPERIMENTS—POTATO RAISING.

The following experiments are with potatoes of the Mercer variety, on loamy soil, with subsoil of clay, and were planted the last week in April. I ploughed and subsoiled about twenty inches deep; planted the same number in each row. The experiments were conducted with perfect fairness: my object was to ascertain which was the best manure, so as to use it in future. The first three rows I manured broadcast with four hundred pounds Peruvian guano and two bushels plaster per acre, and harrowed it in. I likewise put a tablespoonful of the following manures on each potato:—

- Row No. 1, compost of guano, $\frac{1}{4}$ guano, $\frac{3}{4}$ sand; yield, 1 $\frac{1}{2}$ bushels.
- Row No. 2, plaster; yield, 1 $\frac{1}{2}$ "
- " " 3, poudrette; yield, 1 "

The next four rows, twelve bushels salt per acre, broadcast:—

- Row No. 1, live ashes, handful; yield, . . . 1 $\frac{1}{2}$ bushels.
- " " 2, ground bones, " " " " $\frac{1}{2}$ "
- " " 3, bone dust, tablespoonful, . . . $\frac{3}{4}$ "
- " " 4, compost guano, as above, . . . $\frac{1}{4}$ "

The next five rows, fifteen bushels bone dust per acre:—

- Row No. 1, live ashes and plaster, handful, yield, 1 $\frac{1}{2}$ bushels.
- Row No. 2, salt and plaster, sprinkled along row, 1 $\frac{1}{2}$ bushels.
- Row No. 3, leached ashes and plaster, handful, 1 $\frac{1}{2}$ bushels.
- Row No. 4, bone dust, tablespoonful, . . . 1 bushel.
- " " 5, guano, compost, and plaster, tablespoonful, 1 $\frac{1}{2}$ bushels.

The next seven rows, twenty-five wagon loads stable manure per acre, broadcast:—

- Row No. 1, plaster, tablespoonful; yield, 3 bushels.
- " " 2, pure guano, tablespoonful, by side of potatoes, 2 $\frac{1}{2}$ bushels.
- Row No. 3, road dirt, $\frac{1}{2}$ shovelful on each, 3 $\frac{1}{2}$ "
- " " 4, horse manure, " " " " 3 "
- " " 5, hogpen " " " " 3 "
- " " 6, poudrette, handful, 2 $\frac{1}{2}$ "
- " " 7, guano compost, 2 "

The next experiments were with the Fox-Eye variety, planted 23d May. The manure was put in the row, nothing having been previously put on the ground.

- Rows No. 1, 2, 3, and 4, leached ashes, a handful; yield, 10 bushels or 2 $\frac{1}{2}$ bushels per row.
- Row No. 5, ground bones, small handful; yield, 1 $\frac{1}{2}$ bushels.
- Row No. 6, salt sprinkled along row; yield, 1 bushel.
- No. 7, plaster, tablespoonful; yield, 1 $\frac{1}{2}$ bushels.
- No. 8, pure guano, tablespoonful side of each potato; yield, 1 bushel.
- No. 9 and 10, lime ashes and plaster, handful; yield, 2 bushels each.
- No. 11, 12, 13, and 14, guano and plaster, spread along row, handful about every three yards; yield, 5 bushels, or 1 $\frac{1}{4}$ bushels per row.

In conclusion, I would state that the potatoes where the leached ashes were put were larger and better than either of the others, except the road dirt, which were decidedly finer than any in the field.

PENNINGTON, 1849. W. J.
P. S. The guano potatoes came up some ten days before the others, and looked greener and better for some time, but were finally beat by most of the others. W. J.
— Philadelphia Dollar Newspaper.

The parent who would train up a child in the way he should go, must go in the way that he would train up the child.

Domestic Department.

A GEM. — The sunlight that follows a shipwreck is not less beautiful, though it shines upon the remnants of a broken bark; what is saved is so much more precious than that which has been lost. The domestic circle is always too small to allow of rupture; it is always too precious to make excusable any neglect to prevent or heal disturbance. There are enough to minister by hints and reproaches to domestic unkindness; and unfortunately the best, under such circumstances, are much too prone to mistake, and thus misrepresent motives; and trifles, with no direct object, are magnified into mountains of unintentional offences. It is the same in social life. Let us guard against it. Delicate relations are like the polish of costly cutlery; dampness corrodes, and the rust, though immediately removed, leaves a spot. — *Michigan Farmer.*

TO SWEETEN BREAD WITHOUT SUGAR. — It is not generally known that pure starch, added to the flour and made into dough, will be partially converted into a species of sugar during the process of fermentation and baking, and produces sweet, wholesome bread. From the experiments of Dr. Colquhoun, it appears that starch, arrow-root, farina of potatoes, or similar amylaceous substances made into a jelly, with hot water, may be employed for this purpose with advantage. It is only necessary to mix the flour up with the jelly, instead of mere water, to add yeast and salt, and to bake in the common way. Dr. Percival has recommended the addition of salep for this purpose. One ounce of salep dissolved in one quart of water, two pounds of flour, eighty grains of salt, and two ounces of yeast, give three pounds two ounces of good bread; but the same weight of materials, without the salep, gave only two and three quarters pounds. If too much salep be added, however, it will give its flavor to the bread.

INDIAN FLAP JACKS. — Scald a quart of Indian meal; when lukewarm, turn, stir in half a pint of flour, half a teacup of yeast, and a little salt. When light, fry them in just fat enough to prevent their sticking to the frying-pan. — Another method of making them very nice is, to turn boiling milk and water on the Indian meal, in the proportion of a quart of the former to a pint of the latter; stir in three table spoonfuls of flour, three eggs well beaten, and a couple of teaspoonfuls of salt.

Boys' Department.

WHAT IT IS TO BE POLITE. — Politeness is a trait which every one admires, and which confers upon its possessor a charm that does much to pave the way of life with success. But it is very much misunderstood. Politeness does not consist in wearing a silk glove, and in gracefully lifting your hat when you meet an acquaintance: it does not consist in artificial smiles and flattering speech, but in sincere and honest desires to promote the happiness of those around you; in the readiness to sacrifice your own ease and comfort to add to the enjoyment of others. The man who lays aside all selfishness in regard to the happiness of others, who is ever ready to confer favors, who speaks in the language of kindness and conciliation, and who studies to manifest those little attentions which gratify the heart, is a polite man,

though he may wear a homespun coat, and make a very ungraceful bow. And many a fashionable, who dresses genteelly, and enters the most crowded apartments with assurance and ease, is a perfect compound of rudeness and civility. He who has a heart flowing with kindness and good will towards his fellow-men, and who is guided in the exercise of these feelings by good common sense, is the truly polite man — and he alone. — *Michigan Farmer.*

Health.

VACCINATION OFTEN TIMES NO VACCINATION. — Since the facilities of intercommunication with Europe by steamships have been established, and with different parts of our own country by railroads, we have noticed that cases of small-pox and varioloid are much more frequent. This arises from the carelessness of emigrants, and of others, in not guarding against attacks of small-pox by being vaccinated. But vaccination of the present day is not in all cases what it should be. It does not always protect the person vaccinated. And why does it not? Because impure matter is used for the purpose. Sometimes the matter is taken from the arm of a person who has been revaccinated — sometimes the matter is taken at an improper stage of the pustule, and not unfrequently from a person who has some other cutaneous disease.

Now, in all such cases, the matter so used, if it "takes," as the saying is, will make a sore, and apparently go through all the stages, leave a scar, and all that, and yet be of little or no efficacy in warding off the small-pox. We have known people become diseased with cutaneous diseases, which were undoubtedly brought on by the use of virus taken from a person similarly diseased. Too much care cannot be taken in this business. Be sure that the matter to be used is genuine, and collected at the proper stage of its maturity. If the patient to be inoculated be laboring under any cutaneous disease, or humor, as it is often called, he had better be cured of that first, for we have no doubt that such humor will vitiate the vaccine virus, and render it doubtful, to say the least, whether it will afford any protection to the person who is vaccinated at the time such humor is in full operation. — *Maine Farmer.*

Mechanics' Department, Arts, &c.

CHEAP AND VALUABLE PAINT. — *Editors Cultivator:* The Ohio mineral paint has been offered to the public as something very valuable, particularly to the farmer, for its durability and cheapness. I send you below the detail of some experiments which I caused to be made a year or more since, for cheap paint. I believe it equal to the Ohio article in all particulars, and superior from its greater cheapness, it being within the reach of almost every one.

Experiment No. 1 was the mixing of water-cement with oil to the consistency of paint, and putting it on immediately. Any drying article, used with oil paint, may be put in, if it be desirable to have it dry at once.

No. 2. Cement mixed with coal tar, or gas tar, as it is sometimes called, I put in, in the same manner, without any drying mixture. You can vary the color by the addition of any mineral substance. The paint I have put on, is now as hard as stone, and was put upon rough boards that had been exposed to the weather for ten years. I have just had painted a small building of rough boards, battened sides and

roof. The roof is covered with No. 2, the sides with No. 1. The color of both is stone—No. 1 nearly that of freestone, with a shade of handsome drab, and gradually becomes a little lighter. No. 2 is considerably darker; but this too becomes lighter by exposure to the air. I intend giving to the body of the building another coat, when sharp, clean sand will be thrown against it; and I doubt not, but I shall obtain a rich imitation of freestone.

The water cement used was from Southington, Connecticut, known as *Moore's Cement*.

It is not, like the Ohio patent, patented.

CHARLES R. ALSOP.

MIDDLETOWN, Ct., April 27, 1849.

— *Albany Cultivator*.

INCOMBUSTIBLE PREPARATION FOR WOOD.—The following recipe for rendering wood incombustible, has been, we believe, tested in regard to its efficacy, and although personally we have not seen it proved, think we can recommend it as being of much utility, particularly when applied to the surface of wooden roofs, or other places particularly exposed to the action of fire.

It is very simple in its preparation, which requires the operator merely to take a quantity of water proportionate to the surface of the wood he may wish to cover, and add to it as much potash as can be dissolved therein. When the water will dissolve no more potash, stir into the solution, first, a quantity of flour paste, of the consistency of common painter's size; second, a sufficiency of pure clay, to render it of the consistency of cream.

When the clay is well mixed, apply the preparation, as before directed, to the wood; it will secure it from the action of both fire and rain. In a most violent fire, wood thus saturated may be carbonated, but it will never blaze.

If desirable, a most agreeable color can be given to the preparation, by adding a small quantity of red or yellow ochre.

FENCES.

The following article, from the Philadelphia Dollar Newspaper, contains judicious remarks; but we do not agree with the writer in his conclusion, that the hawthorn makes the best fence. As a matter of utility, or having a fence merely as a protection against animals, it is doubtful whether any hedge could be recommended, as it costs much to raise them and keep them in good condition and handsome appearance; and a flourishing hedge extracts a great deal of nutriment from the soil, which, under different management, might be turned to good account in crops. Yet, as an ornament and defence, a hedge combines these advantages above any other fence. But the hawthorn does not generally flourish well in this climate, as it is destroyed or stunted by our hot, dry summers.

The residence of a farmer cannot be complete unless it is surrounded by fences both convenient and pleasing to the eye. Let his grounds be ever so well cultivated, or his buildings ever so tastefully arranged, without neat fences the whole scene becomes a glaring caricature, more ridiculous from the contrast between order on the one hand and a disregard of taste on the other.

Who would think of building a fine mansion, and of enclosing it with a slender apology for a fence, so constructed as to prevent the entrance of cattle, not by its strength, but by frightening them, as if it were not to be approached without danger? And yet,

how many farm-houses are enclosed by a zigzag thing overgrown by weeds! To complete this interesting picture, we find on one side of a pair of bars a large pig trough, and on the other a few boards placed, one end on the ground, the other on the fence, to provide a dozen half-starved road-pastured swine with a sleeping apartment. So much for the mere appearance of things in front. Let us now take a walk to the back-part of the farm, and see how poor fences answer the purpose there.

In one corner of a field of grain, or of a meadow, an unruly horse is quietly grazing; in another, a yoke of oxen are regaling themselves with becoming gravity; in a third, a few pigs are at the business with a will; and to make all square, a flock of sheep occupy the fourth corner. No farmer can possibly flourish under such auspices, for if his land produces grain, "like sand on the sea-shore," his cattle will break in and destroy it; but no one will dispute the utility of good fences, to constitute which several things are necessary:—

First. A fence must be sufficiently high, otherwise it offers a temptation to spry, young cattle, or to old transgressors, to step over and take a toothful of forbidden fruit.

Second. It must be of sufficient strength, for some beasts are "wont to push with the horn," and a board over the face is no ornament to a good-looking animal.

Third. It must possess durability, for repairing old and rotten fences is no pleasant task.

Fourth. It must not be too expensive, for Yankee farmers dearly prize "the dollars."

Lastly. As a *sine qua non*, beauty must be combined with the above requisites.

The question then arises, What kind of fence has all these good qualities? And it may be answered, the hawthorn, or hedge fence, so common in England. This possesses "the useful with the agreeable," and harmonizes finely with a country scenery.

TRANSPLANTING TREES.

We find, in the Utica Gazette, facts showing that it is not necessary to select small trees for transplanting, in order to insure their growth. Large trees may be as successfully planted as small ones. The mode and result of an experiment, made by Messrs. Pomeroy and Dutton, of Utica, are thus given:—

Those gentlemen transplanted trees, comprising maples, elms, beech, &c., some thirty feet in height, which were transplanted without being shorn of any of their branches. The process of removal was as follows: In the fall, before the frost, a trench was dug around the trees selected, from ten to fifteen feet in diameter, and the roots severed. In the winter, when the ground had become solid from freezing, the trees pulled out by the aid of oxen and levers, with the mass of earth firmly attached to the roots. They were then transported erect on a strong sled, built for the purpose, and set out.

The trees grew in open land a mile and a half from the city. They put on their foliage last spring, as if wholly unconscious that they were not still in their native soil; and the enterprising gentlemen who undertook this unusual course are rewarded with shade trees, which by the old practice would have required twenty years to produce.

TO REMOVE STUMPS.—If they are dry, set them on fire; if not, chain an upright lever, from eight to twelve feet in length, to them, and hitch a yoke of cattle to the upper end of the lever. If the lever is a good one, and firmly chained, the stump will be keeled over very easily. Stumps decay soonest if cut high, as they then hold most water.

SULLIVAN, N. H., CATTLE SHOW.

An agricultural society was organized in Sullivan county, N. H., last year, and the following account of their first show, recently held at Claremont, is very encouraging. We copy from the Newport Argus:—

From what we can learn, it was not expected that the gathering would be large, or that the productions of agriculture, and other articles brought to the fair for exhibition, would be numerous. But in this respect, the society and all were most happily disappointed. The assemblage from all parts of the county was exceedingly large, surpassing any gathering, to our knowledge, ever held in the county. A deep interest was manifested in the cause of agriculture.

The number of cattle brought to the fair was large. In this respect, the people of Croydon took the lead. They had attached to one team seventy-eight yoke of cattle, and a band of music, which excited much attention. Our Croydon neighbors are most clearly entitled to premium No. 1, on long teams. Among the big oxen, we noticed one yoke owned by Colonel E. J. Glidden, of Unity, which weighed about four thousand pounds. There were many other large cattle on the ground, a number of which were from Langdon: their precise weight we did not learn. There was also a good representation of steers, cows, and calves, some of which were very handsome.

The vegetable department, in which there was a good display, consisted of various kinds of potatoes, pumpkins, squashes, cabbages, turnips, apples, pears, &c., &c. We noticed some pumpkins, raised by H. P. Henderson, and I. Hubbard, Esq., of Claremont, which weighed eighty pounds. We also noticed squashes raised by Hon. S. Edgerton, of Langdon, which weighed seventy-six pounds, and some raised by Granville Gilmore, Esq., of Acworth, four and a half feet long.

The various kinds of needle-work by the ladies displayed much taste and ingenuity, and was said to be nicely executed.

The address was delivered by Mr. Brewster, of Hanover. Many parts of it were highly interesting. He spoke of agriculture as being the great leading interest in the country—the interest upon which all others rest, and which feeds and clothes the world.

FEEDING POULTRY.

Professor Gregory, of Aberdeen, Scotland, in an epistle to one of his friends, remarks on this subject as follows:—

“As I suppose you keep poultry, I may tell you that it has been ascertained that if you mix with their food a sufficient quantity of egg-shells, or common chalk, which they will eat greedily, they will lay twice or thrice as many eggs as before. A well-fed fowl is disposed to lay a vast number of eggs, but cannot do so without the materials for the shells, however nourishing, in other respects, may be her food. Indeed, a fowl fed on food and water, free from carbonate of lime, and not finding any in the soil, or in the shape of mortar, which they often eat off the walls, would lay no eggs at all with the best will in the world.”

I have this season kept twenty-three hens and a cock, feeding them mostly on grain, green vegetables, sour milk, and meat; but as the year is not yet completed, during which my experiments with them are to extend, I forbear entering into a detailed statement of the profit at present, as it cannot be fully ascertained or even approximated. I have found that by giving them meat regularly every day,—the offal from the shambles, or, when this cannot be obtained, fresh fish, an abundance of which can

be supplied from ponds and streams,—they will lay continuously, if provided with ashes, lime, egg-shells, or sand, to supply material for the shells. Brick-dust is an excellent substitute for the above; but it is more expensive, and will rarely be resorted to where lime can be obtained. In August, I commence setting my hens, allowing thirteen eggs—which are as many as can be well covered or incubated by one fowl—to each hen. Care is had to secure a good nest, where the sitting process will be performed comfortably and without interruption. Some commence setting their fowls in July; and when the poultry is wanted for early use or marketing, this is no doubt a better month than August; but I prefer the profit on the eggs during the preceding months, as I have never failed to have enough poultry for my own use, and a considerable quantity for marketing, when no chickens have been hatched till the last week in August, or the first or even the middle of the month following.

As soon as the broods are hatched, the hen is removed to a coop, conveniently situated for feeding, and carefully attended for three weeks, when she is permitted to range the fields with her brood—a shelter being prepared for them at night, to which they ordinarily resort voluntarily, and without any trouble or extra inducement being offered after the first night or two. In setting my hens, I am guided by the suggestions of Columella, who wrote nearly three thousand years ago, and who appears better to have comprehended the legitimate laws of poultry-raising than most of our modern authors who pretend to great skill and accuracy in the art. He remarks that all the long-shaped eggs, having concentric circles developed on the smaller ends, invariably produce male birds, and those which have not, females. This I have found to be strictly true. When I intend to produce fowls for market or for home consumption, I select the long eggs, as males are heavier and more hardy than females; but if my object is brood fowls, the shorter and smoother eggs are taken. On this subject I will write you again.

AGRICOLA.

LOWER DUBLIN, October 15, 1849.

—*Germantown Telegraph.*

WOOL MARKET AT THE SOUTH.

With a view of keeping our readers apprised of the general progress of the wool business in this country, we present the following article. We have occasionally referred to the extension of wool-raising in the west, and on the highlands in the south, inferring from the great interest every where manifested in this subject, and the cheapness of lands west and south, and the facilities of communication, that the greatest competition in the wool market will be in our own country; and yet this should not at present discourage the wool-grower of the north, as manufactories are increasing as fast as the increase of the wool-growing business. A vast amount will be wanted to supply the millions of spindles that will soon be in operation. We copy from the American Farmer, published in Baltimore.

The Wool-Growers' Convention, lately held at Washington, Pa., I hope will have a tendency to draw the attention of the wool-growers of the adjoining states of Maryland, Ohio, and Virginia, to that all-important staple, and induce them to fall upon some plan, by which the northern and eastern manufacturer may know where he can find the precise qualities of wool suited to his peculiar manu-

facture, the want of which has caused the manufacturer to work to great disadvantage, as he is under the present system compelled to buy his wool, in many instances, with fleeces ranging from the coarsest Leicester to fleeces almost equal to best Saxony, which would assort into some twelve or fourteen distinct numbers or qualities, when he would probably not require for his own use more than one or two of any of those numbers; and the consequence is, that he is liable to a loss upon all the others, or he must manufacture from those fabrics, for which his machinery is not adapted, and suffer a further loss. Now, the only plan by which this vexatious state of things can be obviated is by the establishment of a wool-grading and assorting house, where they could have their wool put into its various numbers or qualities, where it can be presented to the purchaser, with an assurance that he will get what he buys, and nothing else: this assorting would probably cost the grower from two to two and a half cents, for assorting and cleansing from burs, &c., and he will find that it will enhance the value of his article to much greater extent than the extra charge of the wool-house. Having been a manufacturer for many years, I can fully appreciate some such system; having often been put to the inconvenience of working up small parcels, where larger ones would have been much more profitable; and all from the fact of having to buy all qualities mixed through each other. The plan, as now pursued by the wool-grower, is to bundle all his fleeces "pell mell" into a sack, and send them off to his merchant in the city to sell for him, who, though, perhaps, a good judge of cloths, knows nothing under heaven about the quality of wool in the fleeces, and probably, in the usual course of his business, never saw a fleece opened, and, if he did, could not tell upon what part the finest wool was to be found, and therefore liable to be imposed upon by the designing, though he is not the sufferer, so far as his commission is concerned. It requires a great deal of judgment and long experience to know how to handle wool. I know of no place so well suited for such an establishment as Baltimore, from her central situation, as well as being in the great thoroughfare from the Western to the Eastern States, which, for a long time to come, will consume all that can be produced of the fine qualities of wool. Immense quantities pass from this city annually to the east, and the greater part in small parcels, as received from individual growers, and all from the want of a wool-grading house in the city.

MANUFACTURER.

SASSAFRAS SWEET APPLE.

We copy the following article from the Albany Cultivator, under the head of "Haskell Sweet Apple."

In the last number of The Cultivator, under the horticultural department, I see, in answer to inquiries respecting the best sweet apples, you name the Haskell Sweet, for the fall.

I should be pleased to know from you, if this is the same apple described by Cole, in his recent Fruit Book. If it is, it will present the singular fact of an apple of high merit disseminated at a distance, and yet here in Essex county hardly known at all beyond the town (Ipswich) where it originated. It would also confirm my own opinion of its superior qualities.

I know not why Mr. Cole calls this the Sassafras apple. The original stock is now standing on a farm once owned by a Deacon Haskell, whence its name.

ALLEN W. DODGE.

HAMILTON, MASS., August 24, 1849.

[This is the same as Cole's Sassafras apple. It has been cultivated by Robert Manning, of Salem, who

thinks it the best autumn sweet apple. It has also proved fine at Macedon, in Western New York. Ed.]

In the American Fruit Book, we say of this apple that, *in our opinion*, the same fruit is considerably known under each name. We do not state this as a fact, as we have not seen and compared them together, but have tried them at different periods, and depend on memory, as well as judgment, for their identity.

Mr. Dodge will perceive that we have given a reason for preferring the name *Sassafras*, as it is significant. This apple has a distinct sassafras flavor. Another reason we might have given, is, that it is more extensively cultivated under the name of *Sassafras*.

CULTIVATION OF THE CRANBERRY.

Having read some reports on the cultivation of the Cranberry, from practical men, I was induced to make a trial of it last spring myself. I took some cranberry sods direct from the swamp, just like taking them from the water, and set them in hills some four or five feet apart, on a swamp muck soil, which had been drained dry enough to grow good potatoes. I set some fifteen or twenty rods of ground, on several different times, or dates. The first I set was in the second or third week in April, and the last in the last week in May. They have some scattering cranberries on them now, and have grown and spread over the ground far beyond what I anticipated; and if they grow as fast as they have done thus far, for a year to come, I think they will spread over the whole ground between the hills, for some of them have grown from three to three and a half feet in length already.

B. MEACHAM.

CLAREMONT, N. H.

— Selected.

GRAPE-VINES.

The cultivators of grapes have frequently complained that their vines do not bear fruit annually. A distinguished agriculturist has adopted the following method to remedy the evil, and has found it successful. He trims his vines in such a manner that some parts will make wood exclusively, and others produce grapes in the same year; and in the following year he uses the new limbs as fruit-bearers, and lops off the fruit-bearers of the first year, so that their places may be supplied with new branches to bear fruit in the third year. Thus, let 1, 2, 3, 4, represent the four main branches of a vine. He lops off in the fall 1 and 3, and suffers 2 and 4 to remain as fruit-bearers. The second year he lops off 2 and 4, and suffers the new growth on 1 and 3 to remain as fruit-bearers in the third year. The following will be the results for three years:—

In 1850, 2 and 4 will produce grapes.

In 1851, 1 and 3 " " "

In 1852, 2 and 4 " " "

Thus an annual supply of fruit will be insured by adopting this simple remedy.

E. B. R.

SPRINGFIELD, CLARK COUNTY, OHIO, 1849.

— Philadelphia Dollar Newspaper.

POTATOES AND CATTLE FROM THE BRITISH PROVINCES.

Two vessels from Londonderry and Cornwallis, N. S., with potatoes, the former with a deck load of cattle, horses, and sheep, arrived here this morning. The cattle are brought here in consequence of the deficiency of the hay crop in the British Provinces.

— Boston Traveller.

ACKNOWLEDGMENTS.

From J. M. Ives, Salem, Mountain Sweet melon. This fruit was past its prime, but it gave evidence of its great excellence. This is regarded as one of the finest varieties of watermelons. Mr. Ives remarks that it is early. Also various kinds of apples and pears: among the former is the Can apple of Cox, identical with Seaver Sweet, or Winter High Top, one of our finest kinds.

Of Charles L. Spaulding, Cavendish, Vt., New York Red potatoes, very mealy and fine. This is one of the few kinds that we have not yet had in our collection, which embraces about two hundred kinds. Mr. S says this is not liable to rot, and it yields well. Also Irish Apple potatoes, of excellent quality, but rather liable to rot.

From Colonel Libbeus Chase, Cornish, N. H., various kinds of grapes, on which we shall report soon.

We have several varieties of apple, among them the Spaulding Sweet. The name of the donor is mislaid, and we should be pleased to receive it again.

THE ARMY WORM.

This destructive insect, which four or five weeks ago made a campaign in Southern Illinois, attacking hundreds of acres at a time, and sweeping off grass, oats, and late corn, all alike, has just made its appearance in Northern Wisconsin, where it is doing great damage. The Detroit Bulletin states that the worms are particularly destructive upon oats. They climb the stock, first cutting off the leaves and then the head. They move in droves from one field to another, their tracks across roads very much resembling that made by drawing hay or straw over mellow ground. Complaints are made of their ravages in Dodge, Fon du Lac, and Brown counties. — *Cincinnati Gazette*.

CUTTING OFF THE STEMS OF POTATOES.

Mr. C. Wood, of Wadsworth Common, England, says, in a communication in the Agricultural Gazette, —

“I have followed the plan ever since 1845, with success. I had the tops cut off, last year, quite in a green state, long before the tubers could possibly be either ripe or have finished their growth; and, when taken up, they were fine in size, and of excellent quality. I have a few of them left yet, (July 10,) in a perfectly sound state. The only difference in the plan pursued by Mr. Lomba and mine, consists in putting a layer of earth over the surface — a practice in which I can see no value. I usually remove the haulm on the first appearance of the botrytes (disease) on the under sides of the leaves. I have already taken it off my early sorts, and I am satisfied, from experience, that, if this is strictly attended to, no one need fear the disease, either in wet or dry, rich or poor soils.”

GENEROSITY.

True generosity does not consist in obeying every impulse of humanity, in following blind passion for our guide, and impairing our circumstances by present benefactions, so as to render us incapable of future ones. — *Goldsmith*.

THE INDIAN SUMMER.

There is a time, just ere the frost
Prepares to pave old Winter's way,
When Autumn, in a reverly lost,
The mellow daytime dicams away.

When Summer comes, in musing mind,
To gaze once more on hill and dell,
To mark how many sheaves they bind,
And see if all is ripened well, —

With balmy breath she whispers low;
The dying flowers look up, and give
Their sweetest incense, ere they go,
For her who bade their beauties live.

She bends above the quiet pool
In which the rill forgets to play;
The frolic eddies quickly school
Their eyes of glass her transient stay.

She enters 'neath the woodland shade;
Her zephyrs lift the lingering leaf,
And bear it gently where are laid
The loved and lost ones of its grief.

She seeks the shore; old ocean heaves,
In gladness huge, his mighty breast,
Prisons his wild winds in their caves,
And basking in her smiles, is blest.

At last old Autumn, rousing, takes
Again his sceptre and his throne;
With boisterous hand the trees he shakes,
Intent on gathering all his own.

Sweet Summer, sighing, flies the plain,
And waiting Winter, gaunt and grim,
Sees miser Autumn hoard his grain,
And smiles to think 'tis all for him!

— *Home Journal*.

THE OLIO.

“The tree is known by its fruit.” The only exception to this is the *dog-wood*, which is known by its bark!

“Charles,” said a father to his son, while they were working in a saw-mill, “what possesses you to associate with such girls as you do? When I was of your age, I could go with the first cut.” “But,” said Charles, “the first cut is the slab.”

Why should we open our hearts to the world? It laughs at our weakness; it does not believe our virtues; it does not pity our sorrows.

There is an English statute, where one half goes to the king, and the other half to the informer — the penalty being *fourteen years' transportation*.

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18¢ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1½ cents, or 39 cents a year, beyond those distances.

STEREOTYPED AT THE
BOSTON TYPE AND STEREOTYPE FOUNDRY.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, NOVEMBER 24, 1849.

NO. 25.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

EXHIBITION OF FOWLS, AND CONVENTION OF FOWL BREEDERS AND FANCIERS.

On the 15th and 16th of this month, the grand show of fowls, and convention of fowl breeders and fanciers, came off in the public garden in this city. Notwithstanding the lateness in the season, the weather was most delightful, being as bland and bright as the fine weather in May or September.

The show was extensive both in numbers and variety, far exceeding expectation; and the remarkably fine condition of the fowls was highly creditable to the exhibitors. Those who had taken but a limited observation of this subject were astonished at the great variety, richness, and excellence of the show; and the many thousands who witnessed it were happily disappointed and highly gratified; and when they saw so many splendid and beautiful fowls, so great a variety possessing peculiar characteristics and marks of distinction, and so large a number of intelligent men giving their attention to this subject, and aiming to improve the various breeds and disseminate useful information on a subject of so much practical utility to all classes, they looked upon this branch of rural economy as assuming great importance, and destined to rank high among the industrial pursuits that contribute largely to the profit and pleasure of the operator, and to the general welfare of the community, and to rural embellishment.

There were about two hundred lots or coops of fowls, and the whole number of fowls was probably about one thousand. Some editors estimated them at two or three thousand; but such are doubtless accustomed to counting votes before election. Almost every breed of hens in the country was represented, from the beautiful little Bantam, no bigger than a common pigeon, to the majestic India fowls, as large as turkeys.

The greatest deficiency was in the common native hens, which were scarcely seen excepting in crosses. Had the finest natives been selected, they would have added much to the interest and beauty, as well as to the extent, of the show. In fowls as in other

stock, too much attention is given to foreign breeds, to the neglect of improving the domestic races. Our best natives, judiciously selected and bred by crosses, would rank, in utility and show, with the finest foreign varieties.

Besides the numerous distinct breeds at this exhibition, there were crosses and mixtures of almost every description; for in stock, as in every thing else, the love of experiment and desire for improvement stimulate Yankees to try every mode, with a view of producing something novel, excellent, or wonderful.

BARNDOR FOWLS OR HENS.

Bantams. — There were various lots of the little Bantams, of different colors, but mostly white. John Giles, Providence, R. I., had African Bantams. E. B. Little, Haverhill; Henry Little, Marshfield; S. H. Peck, Lynn; A. H. Hale, Rockport; B. W. Baleh, Dedham; Calvin B. Austin, Danvers; E. B. Richardson, Brookline; H. L. Devereau, Boston; George S. Pierce and Stephen Osborne, Danvers; and A. A. Andrews, Roxbury, exhibited Bantams. Those of Mr. Devereau were white, with top-knots.

Creepers. — Parker Barnes, Dorchester, and Henry Little, Marshfield, showed Creepers — an old but excellent race. Mr. B. had in his show eggs laid by pullets, which were large for small fowls. He claims for them superior profit, and excellence both in eggs and flesh, in proportion to the food consumed.

Italian, or Black Spanish, were exhibited by Daniel Buxton, Jr., Danvers; A. White, Randolph; Calvin B. Austin, Danvers; B. Shurtleff and N. Coolidge, North Chelsea; and S. B. Morse, East Boston. Those by Mr. B. were remarkable for their purity, beauty, and distinctness.

Dorkings were exhibited by Dr. E. Wight, Dedham; W. E. Richardson, Brookline; John Giles; W. J. Buckminster, Framingham; Clinton Clark, Brookline; L. H. Stoddard, Brookline; George S. Pierce and Stephen Osborne, Danvers; N. C. Day, Leominster; J. S. Houghton, North Chelsea; A. A. Andrews, Roxbury; Theodore Drew, Plymouth; John W. Hunt, North Bridgewater; N. H. Tyrrell, Easton; T. G. Morrell, Georgetown. The Dorkings, as they were marked, were of various sizes and

colors, and many of them were doubtless mixed with other breeds. Dr. Wight's imported Dorkings were much admired.

Bolton Grays were shown by Nathan G. Hodson, Stoughton; James Houghton, Dorchester; Joseph A. Stinger, Kingston; John Giles; and W. W. Hague, Roxbury.

Bucks County fowls were exhibited by A. White, East Randolph; and George S. Pierce and Stephen Osborne, Danvers.

Poland Top-Knots were shown by A. White, East Randolph; J. M. Rowell, Manchester, N. H.; G. S. Pierce and S. Osborne, Danvers; D. Holmes, Malden; A. H. Hale, Rockport; Theodore Drew, Plymouth; and Joseph A. Sampson, Duxbury.

Guelderlands were exhibited by H. L. Devereux, Boston; and S. B. Morse, East Boston.

Java fowls were shown by John Giles, Providence; and John Chamberlain, Jr., Danvers.

English Grays were exhibited by Linus Mantry, Easton; J. C. Floyd, Dorchester; and T. A. Stanley, Attleborough.

Creoles were shown by D. M. Robertson, Manchester; and John W. Hunt, North Bridgewater.

Dominique fowls were exhibited by G. S. Pierce and S. Osborne, and John Chamberlain, Jr., Danvers.

Fizzled, or Friesland, by G. S. Pierce, and S. Osborne.

Shanghai fowls, by S. and G. Hyde, Newton; A. Pike, Watertown; W. J. Buckminster, Framingham; J. S. Houghton, North Chelsea; C. B. Marsh, West Roxbury; John Giles; B. Lancaster, Roxbury; E. B. Little, Haverhill; G. W. George, Haverhill; B. W. Balch, Dedham; J. W. Spooner, Plymouth; and Thomas Thorpe, West Cambridge. Many others exhibited the Shanghai fowls, and crosses of this breed, with various others. In several cases, this breed and crosses of it were marked Cochin China, and China; but there are no Cochin China fowls in this country, in the opinion of the most competent judges. It is said that there are none in England excepting a few owned by the queen.

There were many varieties of fowls formed by crosses, some of which were of fine appearance, and will doubtless rank high in point of utility. S. M. Stanley and P. M. George, of Attleborough, showed very fine fowls, produced by a cross some twenty years ago. The finest looking hen in the whole exhibition, in our opinion, was a large fowl shown by Howard B. Coffin, which was from a cross of the Dorking with what was called the China breed. That old hen will be very diligent if she lays eggs enough in one season to fill the numerous orders for her eggs.

Several lots of hens were marked Pheasants; but there were no pheasants shown, excepting a pair by Colonel Jaques. The hens called pheasants might be one fourth or sixth of the pheasant blood. They probably descended from a cross of the golden pheasant with the Poland fowl.

There were but very few fowls marked Game breed, and the most of them were a mixture.

Plymouth Rock.—This is a new variety, recently

formed at Plymouth, and which has gained an early, and, we think, a short-lived fame, unless their intrinsic properties excel their appearance. But few of this race were shown, and some of them were very good in appearance.

TURKEYS.—John Giles exhibited a pair of wild turkeys.

GEESE.—Daniel Webster, Marshfield, showed a fine lot of wild geese; one pair of old ones and young ones. Colonel Samuel Jaques, Somerville, exhibited Bremen geese, remarkably large. By John Giles, one pair of Barnacle geese, and one Poland gander.

DUCKS.—John Giles showed imported Aylesbury ducks, and Muscovy ducks; Rufus Bates, Hanover, imported Poland ducks; Isaac Ellis, Walpole, ducks; E. S. Rand, Dedham, one Wood duck, very beautiful.

GUINEA fowls were exhibited by John Giles; and J. R. Bartlett, Newbury.

PEA fowls were shown by H. L. Devereux.

SWANS.—Noble and beautiful white swans were shown by John Giles.

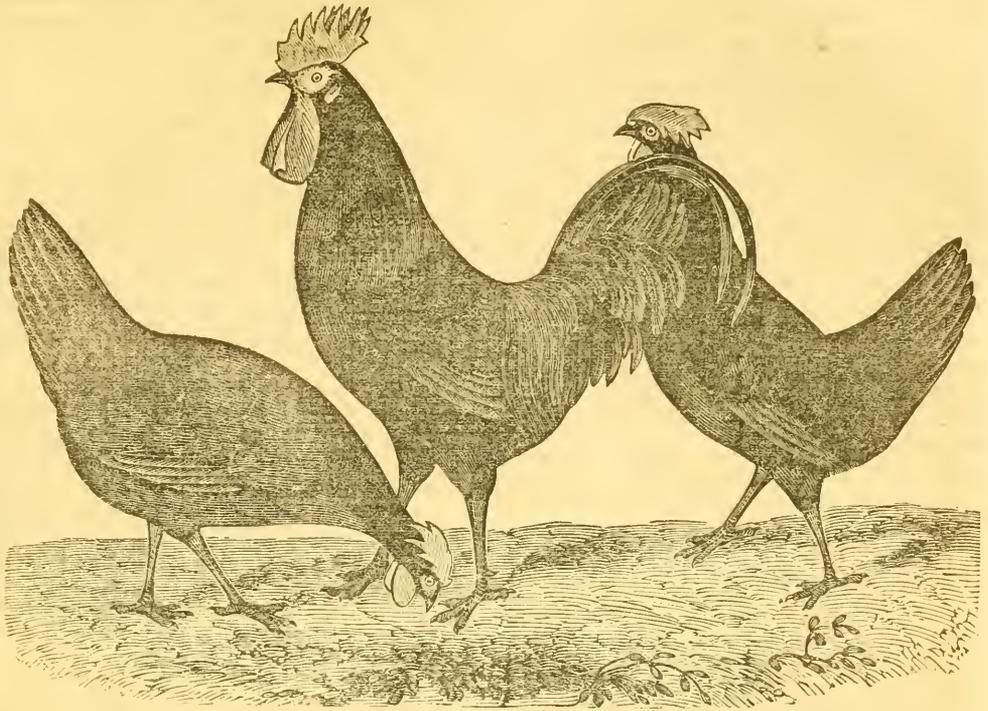
We have endeavored to show to our readers who had not the pleasure of visiting this exhibition, its variety and extent, and show by whom the different breeds were exhibited, as a matter of information to purchasers; but where there was so great a variety, and changes made by bringing new lots, and carrying away others, and in short days with crowds constantly around the coops, and other duties to attend to, it is difficult doing justice to the novel subject.

We hope that the committee will publish a report, in which they will discriminate as to the purity of breeds, and the peculiar properties of each breed, showing its excellences and defects, if it has any. The public are looking for information from the experienced and intelligent committee, to whom great credit is due for their arrangement and management of this affair, as well as to Dr. Bennet, of Plymouth, for suggesting it. The beginning has been excellent, and remarkably promising, and it has created an excitement that, like that for raising fruit, will have a happy effect on the community. We suppose that arrangements have been made for future shows, and that they will far exceed the recent exhibition. Many sales of barn-door fowls were made at the fair, at from five to ten or fifteen dollars per pair. Since the exhibition, blood stock in fowls has risen from fifty to one hundred per cent.

Much credit is due to S. B. Morse, East Boston, the very intelligent secretary of the convention, for the efficient and accurate manner in which he discharged the perplexing duties of his office, and his general care and oversight of the exhibition:

FLOWERS.

Flowers are divided into annuals, which flower and die the year they are sown; biennials, which flower the second year, and then die; and perennials, which do not, generally, flower the first year, but die down to the ground annually, and spring up again every succeeding spring for a number of years.



ITALIAN OR BLACK SPANISH FOWLS.

This breed is very common in Italy, Spain, and other countries along the Mediterranean. They are very distinctly marked, and uniform in form and color.

The size is large, the form compact and symmetrical; the color, a jet, shining black. They have very large single combs, and long wattles, which expose them to injury in very cold climates, unless well protected by a warm house.

The eggs of this breed are large and of excellent quality. The flesh is also excellent. They are good layers, and they commence laying young. They are considered as one of the most profitable races, and all who saw them at the late show will testify to their fine appearance, as they may justly be classed among the most ornamental breeds.

Our engraving is drawn from life, by Brown, representing specimens of the fine lot exhibited at the late fair by Mr. Daniel Buxton, Danvers, some of which he sold at ten dollars per pair.

FRUGALITY.

This mercantile wisdom of "a penny saved is two pence got," may be accommodated to all conditions by observing, that not only they who pursue any lucrative employment will save time when they forbear expense, and that time may be employed to the increase of profit, but that they, who are above such minute considerations, will find, by every victory over appetite or passion, new strength added to the mind, will gain the power of refusing those solicitations by which the young and vivacious are hourly

assaulted, and in time, set themselves above the reach of extravagance and folly.

It appears evident that frugality is necessary even to complete the pleasure of expense; for it may be generally remarked of those who squander what they know their fortune not sufficient to allow, that in their most jovial expense, there always breaks out some proof of discontent and impatience; they either scatter with a kind of wild desperation and affected lavishness, as criminals brave the gallows when they cannot escape it, or pay their money with a peevish anxiety, and endeavor at once to spend idly and save meanly; having neither firmness to deny their passions, nor courage to gratify them, they murmur at their own enjoyments, and poison the bowl of pleasure by reflections on the cost. — *Johnson.*

PEA STRAW.

Not long since, I saw a communication from some brother farmer out west, stating that pea straw was entirely worthless. I think his saying thus was in consequence of his never having tested the value of it. Last year I raised a fine crop of the green pea, and was careful to preserve them from storms. I got them into the barn in a good condition, and wintered my sheep on the straw, without grain or roots, and never had my sheep look better than they do this spring. I think there is no straw better worth saving than pea straw, if properly taken care of and preserved from the weather. Let some other person try them and tell us the result. — *Genesee Farmer.*

Dr. Franklin, endeavoring to kill a turkey by an electric shock, received the whole battery himself, when he good-naturedly observed, that, instead of killing a turkey, he had nearly put an end to the existence of a goose.

For the New England Farmer.

THE SEASON AS TO FRUITS.

MR. COLE: Whoever remembers the warm days of last December, and fainted through fear that the buds of fruit trees would swell so much as to be killed by future frosts, as well as those who shuddered at their fate in February when the mercury sunk not only to "fatal 14°," but more than 20° below zero, must of necessity be surprised that the expectations of wise, calculating men failed, and that the buds of all kinds of fruit trees survived both fatal influences, not only in the valleys, but along the hill sides and on the hill tops of *cold, mountainous Berkshire*.

The bloom of every kind of fruit tree cultivated here was abundant, though much later than in most seasons. Apple-trees gave a profusion of large, fair blossoms; but owing to the cold winds that passed over them, but little fruit set, and that that reached maturity was of an inferior size and quality, compared with ordinary crops.

Pears blossomed much like apples; not quite so full, perhaps. The quantity of this fruit, in proportion to the number of trees cultivated, was much more liberal.

English cherries are a rare article in this region. We wonder at it, the tree is so hardy, and the better varieties of fruit so fine. They produced a fine crop of perfect fruit in 1849. If any one wishes to know how long it takes an English cherry-tree to come in bearing here, we will say to them that, in the spring of 1842, we grafted one three fourths of an inch in diameter near the ground: this graft has borne three years, is now twenty feet high, with a fine head, and, the last summer, produced cherries enough to pay for all the labor we have bestowed upon it. Of course, it is now in its cherry-tree infancy, and its future crops may all be nearly considered a clear gain.

Plums have borne in profusion, so that every one who has trees has had an abundant supply and to spare. (Do not forget to salt your plum-trees liberally, if you would have them healthy and productive. We have known several trees that bloomed well, but produced no fruit, come into bearing the first year after the application of salt.)

Peaches — ah! the delicious peaches! If there is a single point in which all the world is agreed, it is this, that *peaches ARE GOOD*. The invalid says they are healthy; and we, from the good effects we have received from them, — those of our own raising, the present year, — are disposed to think his assertion is correct. But what elongated countenances were visible, and what fearful forebodings were felt, last winter, when unusual warmth was followed by severe cold, in anticipation of the failure of the peach crop! Our learned professors said it was all over with them, when the frosty mornings sent the mercury to 20°, 22°, 23° below zero; and others thought so too, when they saw the dingy, half-formed blossoms coming out to meet the cold wind the latter part of May. Yet these same trees, that gave such a miserable bloom to look upon so late in May, that some of them hung on in June, gave ample crops in September and October. The fruit was good too, as rich and as perfect as can be found at any time in any land.

It is probable the tardiness in appearance of the blossoms in many instances saved the crop. A single illustration may substantiate the probability, and establish it as a fact.

In the gardens of Mr. Samuel Goodrich, located on the interval of the Housatonic, in a warm soil, in Stockbridge, the peach failed entirely, from having started too early, and being subject to a spring frost; while in the garden of General Williams, located in

the hill country of the same town, the crop was full, equalling fifty bushels, which, in a small, young orchard, in a region where nine tenths of the population have considered peach-trees a nuisance, and those who planted them visionary, is certainly a good crop.

We do not suppose that peaches will grow here without care; neither will any other crop. Even our old forests, planted by the hand of nature, will, in cultivated countries, through negligence, run to decay. Grass, the spontaneous growth of the country, through neglect or mismanagement will run out and give place to weeds. How then can we expect that the native products of distant climes will flourish and perfect themselves without due watchings and timely labors? Soil, location, and after management are considerations that must be attended to in the cultivation of all kinds of fruit trees, to insure their full success.

The *Allen peach*. You will recollect, perhaps, that, some three or four years since, — I am not certain which, — you sent me three pits of this peach. These were immediately planted, and two of them vegetated. Both grew vigorously, but one of them unfortunately got broken down the next winter, which put it back a year. The other has produced as large a crop as was desirable, and the peaches are fine to look upon, and fine to taste. Average size three inches in diameter; flesh very juicy and rich; a beautiful blush on the side next to the sun. The tree makes a very fine, strong wood, and appears to be perfectly hardy. It is, no doubt, one of the best varieties for our climate.

Yours truly,

W. BACON.

EDITORIAL REMARKS. — Several years ago, we visited the peach orchards in Walpole, and gave a particular notice of the *Allen peach*, cultivated extensively there — far more than any other variety. The peculiar properties of this peach in producing the same from seed, as it had been cultivated in that way for forty years, with its hardiness, and early, constant and great bearing, with its good qualities, caused a demand for the trees, and they have been widely disseminated. We distributed many trees or seeds to our friends.

A few cultivators have complained that this peach is rather small for market; yet we believe that no variety has afforded more profit than this. Four or five years ago, Mr. Jeremiah Allen, of Walpole, had a large crop from a young orchard, and the same trees have borne well this season. Mr. Daniel Allen, who carried the fruit to market informed us that the crop from one and a third acres produced over four hundred dollars this season. Has any cultivator in New England beat this?

When in Maine, last summer, where we had sent some stones of the *Allen peach* to our friends, we saw some of the fruit, where the thermometer, the previous winter, must have been as low as 25° or 30° below zero. We are happy to find that this peach sustains the high character which we gave it, on introducing it to the public. Mr. Allen, the old gentleman, who has the honor of originating this valuable variety, says, as we are informed, that his trees have failed only three or four years in forty.

This peach is not large, but it is medial in size; very handsome, and of excellent quality; and its vigor, hardiness, productiveness, and long life, and the very important advantage of yielding the same

fruit from seed, are valuable properties, especially in this cold climate.

For the New England Farmer.

ANALYSIS OF SOILS.

MR. EDITOR: Some time ago, I read, in your first September number, an article entitled "Analysis of Soils, &c." I noticed in the article an inquiry instituted by the writer relative to the manner of analyzing soils, for the purpose of ascertaining what elements need be added to the soil of any particular field to prepare it in the best manner for the production of any desired crop.

After reading the above article, I examined the subsequent numbers of your paper, hoping to discover, at least, some reference to this inquiry; but I am disappointed in finding that no notice has been taken of it by any one of your correspondents.

Although I am not a practical chemist, neither an experienced farmer, I will nevertheless say a few words on this subject, with the hope that, by breaking the ice, I may induce others, better qualified than myself, to impart to us some valuable information on the subject of this inquiry.

As to the manner in which analyses of soils are performed, I am practically unacquainted. I have, however, paid some attention to the study of agricultural chemistry, sufficient to convince me that a complete analysis can be performed only by a person who, by much study and practice, has prepared himself for this particular business. Very incomplete analyses can be performed by any farmer who feels disposed to take the requisite time and pains: for instance, he can ascertain, with approximate accuracy, the proportionate amount of sand, clay, and lime in the soil of any one of his fields. To do this, he would first put the soil in hot water, to soften the clay; then he would sift the soil, by which process the sand would be separated from the clay and lime, these two passing through the sieve, leaving the sand behind. The sand should then be dried, and its weight ascertained. If now, he treat that portion of the soil which passed through the sieve with muriatic (hydrochloric) acid, the acid will unite with the lime, dissolving it; the solution can then readily be separated from the remaining clay. After the separation, the solution should be evaporated to dryness, and then weighed. Finally, the remaining clay should now be dried, and its weight ascertained. Now, by comparing these obtained weights, he would ascertain, with tolerable accuracy, the proportionate amount of each of these three ingredients of the soil.

The farmer can also ascertain the nature of his soil, to some extent, by mere inspection: thus he can generally ascertain, readily, whether the soil be naturally sandy or clayey, or whether there be much iron present, a trace of which is always found in fertile soils. If his land be rocky, or in the immediate vicinity of rocks, he can ascertain its nature more accurately by learning the chemical constituents of these rocks; since they, by their disintegrations, are constantly changing into soil. Fortunately for the farmer, the chemical constituents of nearly all the various crops, which he raises, have been carefully ascertained and recorded. These analyses he can readily consult by obtaining books which contain them; but he cannot procure accurate and complete analyses of his soil without employing the services of the chemist, and without, of course, incurring considerable expense. This necessary outlay prevents most farmers from obtaining the assistance of the chemist, although they may feel conscious that the benefits they might derive from his investigations would by no means be inconsiderable.

It should, however, be remembered, that the analysis, which the farmer may obtain from the chemist, will be of comparatively little use to him, after the expiration of a few years, unless he take notice of the quantity and nature of the manure which he, from time to time, adds, as well as of the nature and amount of each year's produce; for the addition of fertilizers to the soil, and the removal of a portion of its ingredients, will have a tendency to change its nature to a greater or less extent.

At the present time, farmers are extensively engaged in the manufacture of artificial manures, or, as they are often termed, *compost heaps*. In forming these heaps, is it not important that some regard should be had to the wants of the soil to which this manure is to be applied, as well as to the nature of the crop which is to be raised? Also, in the application of such fertilizers as lime, plaster, &c., which are composed of only a few elements, would it not be well for us to consult the wants both of the soil and the crop? Is not the farmer often greatly disappointed and astonished that the fertilizer which he has added so copiously to the soil, does not apparently increase his harvest?

I have been forcibly reminded of the importance to the farmer of information on these points, by several experiments which have fallen under my observation during the present season. I will mention one of these.

A farmer, in this town, purchased a large quantity of unclarified Glauber's salts, (sulphate of soda,) which he sowed, copiously, on two fields apparently very similar in their nature. On the one field he raised oats; on the other, Indian corn. His crop of corn was quite large, being upwards of sixty bushels to the acre. His crop of oats, on the contrary, was unusually small. He was astonished at this result, and very naturally did not know how to account for it. Now, if he should come into possession of analyses of these two fields, and also of the oat and maize, could he not then, by a little study, obtain some light as to the cause of this result? Or, if he had obtained these analyses, before sowing the salts, is it not probable that he would have added some more needed fertilizer, at least, to the oat field? Or, if he should compare the analysis of the maize with that of the oat, would he not find a much greater amount of soda in the former than in the latter? and could he not very reasonably infer that the salts which he added would benefit the corn much more than the oat crop? But, Mr. Editor, I will not extend my remarks further. My only object in making them is to draw the attention of others to this important subject. How far I have succeeded in accomplishing my object remains to be proved.

L. G. LOWE.

BRIDGEWATER, Nov. 8.

For the New England Farmer.

BONE DISORDER IN COWS.

MR. EDITOR: I was much interested in reading a communication in your paper upon this subject, by A. W. Dodge, Esq. (p. 351.) I do not propose to show that the bones of any cow have actually wasted away; but I have seen many cows that have wasted away, all but their skin and bones, and they lost the use of them; this, too, while they were well fed upon good English hay and Indian meal.

I can remember seeing cows thus affected more than twenty years ago. There is something peculiar in the looks and motion of a cow thus affected: though I cannot fully describe it, yet I can readily distinguish them from what is commonly called poor cows. When a cow is kept poor, the hair is long, and stands erect: this is not the case when they

have the bone disease. They become gaunt, and, when they walk, they put each foot down with as much care as you would set down an old rickety barrel that you were fearful would fall to pieces.

We have never had any cows thus affected on our farm. I trust my neighbors will excuse me if I use their names upon this subject. On the farm of Captain Levi Preston, the cows have long been affected in this way. It was formerly thought, in this neighborhood, that it was something that the cows ate in the pasture that caused it. As his pasture joined ours, we were fearful, for a time, that ours would be affected in the same way. We think now that we can guard against it. He has always been one of the most industrious and prudent farmers of Danvers, taking the best of care of his stock; yet his cows have been the most affected. Now, why is this? I think I can show. For a long time, the most of the stock kept upon his farm were milch cows; the manure applied was mostly made by them; he has never bought manure for his land, nor grain for his stock, so that there has been a constant drain upon the soil of phosphate of lime to supply milk.

I have never known a cow to be affected in this way on a farm where they have been in the habit of buying shorts for their cows, or buying manure for their land.

Your correspondent says that this whole theory appears to him unreasonable, because lands which yield an abundance of good feed, would be just as likely to afford sufficient nutriment to the bones as to the flesh of cattle.

I answer, that they do, but that there are some lands which do not afford nutriment enough for the milk and bones both. If this is not the case, why is it that oxen will thrive well in the same pasture, and cows that are dry, while those that give milk become stiff and diseased? With all due deference to the opinion of Dr. Saunders, I would ask him, why is it that it only affects cows that give milk? And why does the disease first appear at the time when they are giving the greatest quantity? And why are good cows more likely to be affected by it than those which give but little milk?

I would ask him if, in his practice, he has ever known a cow to have this "acidity on the stomach," except in those places where the greater part of the stock kept was milch cows.

A short time since, I was looking at one of our neighbors' cows. He said, "My milch cows want something that they cannot get on this farm now. I give them bone meal twice a week; this helps them; but it is not exactly what they want." He said that he fed his cows better than he did his oxen; yet his oxen always looked remarkably well, and his cows poor. I refer to Mr. Jonathan Berry, who for many years lived upon the Burley farm, so called, in Beverly.

Why is it that his cows are affected here, and not there, if it is not the want of some ingredient in their food? Why is it that oxen and dry cows do well, while milch cows, fed from the same haymow, and meal barrel, become poor and stiff, if it is not because they do not get phosphate of lime enough to make milk and support the bones?

WILLIAM R. PUTNAM.

NORTH DANVERS, Nov. 9.

BLACK WARTS ON PLUM-TREES.

These warts and the curculio are great evils, and the principal ones with which the fruit-grower has to contend in raising plums. They have long been subjects of close investigation to the scientific and practical man, without satisfactory results. The following interesting remarks on the black wart, are

from Miss Grace Darling, who had peculiar advantages for observations, in the numerous horticultural experiments of her distinguished father, the late Judge Darling, of New Haven, Ct.

MR. COLE: I hope you will pardon the liberty I take in writing to you, as I noticed, in your excellent work on fruits, that "no cause had as yet been assigned for the appearance of black knots on plum-trees." They seem to have been entirely exterminated from our trees, by cutting off the branches infected, and burning them. I obtained some which contained two kinds of insects, the one a thick, short, whitish little grub, destitute of feet, the other longer and more slender, of a color inclining to a reddish-brown. I kept them in a tumbler, partly filled with moist earth, and covered with glass. The white larvæ went into the ground, and in a few weeks came out curculios; the others went into the chrysalis state in and on the excrescences, and hatched out about the same time the curculios did. These proved to be a small moth, about a quarter of an inch in length, of a light brown color, with three large spots of a dark brown on the hind margin, and a line of the same color running across the middle of the wings, pointing backwards, so as to form the letter V. They all died very soon, probably from confinement.

I have examined numbers of the warts, and always found the caterpillars of the moths more plentiful than the curculio; but why they should both inhabit the same place, and which the author of the mischief is, I am unable to say. I have, however, come to the conclusion that it is the curculio, which makes use of the young and tender twigs in default of plums, from this fact: the moth never seems to have bored for itself, but occupies the cavity left by the curculio; and also in years when the crop of plums has failed, the number of black excrescences have very much increased. In an instance a few years since, wild cherry-trees, and plum of the natural growth, were literally covered with them, while the budded and more choice varieties escaped.

Respectfully, G. D.

BANNER WHEAT,

OR KLOSS BLUE STEM WINTER WHEAT.

We have occasionally made some remarks on this wheat. See pages 11 and 320. Brother Drew, of the Gospel Banner, in an excellent address before the Franklin (Maine) Agricultural Society, makes the following very interesting remarks on this subject:—

And speaking of personals, you will allow me to advert once more to my own experience with what I call the *Banner* wheat. I observed, that, originally, I received a single spoonful from the Patent Office, in Washington. Hon. Rufus McIntire, of Parsonsfield, also received the same quantity at the same time. This is all I have heard of in this country. Mr. McIntire's success in York county has been good. He has published accounts of it in the Boston papers. He thinks it the winter wheat for Maine. Last year I sent some of it into every county in our state. In some cases, it proved a failure; and I was glad it did, because it showed causes of failure not chargeable to the grain or to the climate. In all such cases, the wheat had been sown too late the preceding autumn, or on flat, heavy lands, liable to be heaved badly by frosts. Whenever sowed in August, or, if later, when sowed on sandy loam, where the water will not stand, and where the snow did not blow off by high winds sweeping over it, the wheat did well. I consider it perfectly sure against

the weevil on account of its earliness only; and for the same reason, nearly as sure against the rust. If the grain fills before the muggy, dog-day weather arrives, there is no danger from rust. Sown in August, it will ordinarily ripen early in July following, and that is before the weevils arrive, or the rusting weather begins.

I have taken a little pains to ascertain the average yield of this wheat the past season, and so far as I have been able to gain facts, I find that it has averaged twenty-five bushels per acre of one bushel's sowing. I ascertain, too, that in the counties of Kennebec and Somerset, on the Kennebec River, there have been, within a month past, three hundred bushels of it sown. Perhaps it would be but a reasonable calculation to say there has been as much sown in all the other (eleven) counties in the state; and if so, Mother Earth has already received six hundred bushels of that rich grain. Should what is sown now, yield as well next year as it has done the present, there will be in our state, by another July, fifteen thousand bushels, which will seed the whole state pretty well. I believe every farmer may find a piece of land on his farm, on which that wheat will be as sure as is corn; and if each man raised but one acre, it would greatly stop the terrible clanking of New York mills, so far as Maine ears are concerned.

A PROPOSITION TO STOCK BREEDERS.

We hope that the following proposition will be well considered, as the subject is of great interest to the agricultural community. Will some of the principal stock breeders in New England give their views upon it? Our columns are at their service. We copy from the *Ohio Cultivator*.

The idea has frequently occurred to me, and I have no doubt to thousands of others, while attending agricultural fairs in different sections of the Union, how both pleasing and profitable it would be, could the amateur stock breeders, throughout the United States, see the very best animals from the different sections brought together, and thus have an opportunity of ascertaining their real and relative merits. They could gain more knowledge which would be practically beneficial, at one such exhibition, than by attending all the state and county fairs held in one year in America even, was it practicable. They would have the animals of the different classes side by side, and thus be able to make strict comparative examinations. We presume the very best only would be presented, and consequently there would not be so much necessity for exercising a good oblivion as well as a good memory, in order to prevent the storehouse of memory from being overloaded with images of inferior animals, as when attending state and county fairs. Each one could readily ascertain what section produces animals having the traits he would especially desire developed in the greatest degree. Many other advantages of such a national exhibition might be enumerated; but I think they will at once suggest themselves to the enlightened stock breeder. I will therefore allude to but one more, which I consider far from the least important.

The opportunity by such an occasion for forming acquaintance, and an interchange of knowledge, at the time, and in future, would be worth five times the cost of attendance to most of the competitors, independent of other considerations. What intelligent stock breeder in the United States would hesitate to travel one thousand miles, if he knew, by so doing, he would have an opportunity of becoming acquainted with even the fifty most successful breeders in the Union, of the kind of stock in which he is particu-

larly interested, and at the same time see their best stock? Then add the other inducements, and how could he stay away? I do not know that it would be best, at present, to have such a national fair annually; but I do think such a one, at least as often as once in five years, would be expedient, profitable, and every way desirable.

In order therefore to give so laudable an object a commencement in some definite form, I shall proceed to make the following proposition, which, if accepted by a sufficient number of my brother wool-growers, and responded to by similar propositions from breeders of other varieties of stock, will secure at least one national fair, and, if it is then thought desirable, give an eligible opportunity for forming a National Agricultural Society, and making arrangements for future exhibitions.

I propose to meet any number, not less than twenty breeders of Saxony sheep, at any suitable time and eligible place in the United States, and exhibit each one Saxony ram, as competitors for the following premiums; the amount necessary for obtaining said premiums to be raised in equal sums by the competitors in the same way it is done by the members of the different agricultural societies.

To the best, silver cup or pitcher worth \$30, other silver ware worth . . . \$35, and \$10 in money.
To the 2d best, silver ware worth 40, and 40 "
" 3d " " " 40, and 30 "
" 4th " " " 30, and 30 "
" 5th " " " 25, and 25 "
" 6th " " " 20, and 20 "
" 7th " " " 15, and 15 "
" 8th " " " 15, and 10 "
" 9th " " " 14, and 8 "
" 10th " " " 10, and 8 "

The silver plate, of course, to have the owner's name, with the award, engraved upon it.

I am willing to suggest that the exhibition in contemplation be held at Cincinnati in the autumn of 1850, at the same time as the Ohio State Fair, provided that fair does not occur before the middle of 10th month, (October.) Any time earlier would be ineligible on two accounts; the wool would not be long enough to show to advantage, and the Ohio River would in all probability not be in good navigable condition before about that time. I wish my suggestion, however, with regard to time and place, to only receive the consideration due to it, as coming from one individual proposing to compete. Should any other competitor think any other time and place more eligible, I shall for one be glad to see his suggestions. As it will be essential to a fair test, that the sheep be shorn as nearly as practicable on the same day, and there will be other arrangements to make, it is very desirable that those intending to compete, report themselves to T. C. Peters, editor of the *Wool-Grower*, or M. B. Bateham, editor of the *Ohio Cultivator*, before the 1st of 3d month, (March,) and the names be published in the different agricultural papers, as reported, that they may have an opportunity of communicating. W. H. LADD.

RICHMOND, JEFFERSON Co., O., 10th Mo. 16th, '49.

P. S. I am very desirous that those, at least, owning other distinct varieties of sheep, or their crosses, which appear to be advantageous, should make and respond to similar propositions, varying the terms to suit themselves. W. H. L.

Remarks. — We heartily approve of the foregoing suggestions and proposition of our friend Ladd; and we hope the subject will receive that consideration on the part of stock breeders which its importance demands. We trust that editors of agricultural papers, throughout the Union, will call the attention of their readers to this matter, so as to elicit discussion, and eventually lead to the adoption of some

plan by which a national fair may be established, if deemed practicable.

If the proposition for commencing a fair of this kind next year should be seconded by a sufficient number of breeders of fine sheep, we would suggest one slight alteration in the terms of the proposition, to wit; that the premium be awarded for the best two or three animals (instead of one) of the class named. We would further suggest that the committee of judges on fine woolled sheep, should consist of the proprietors of the three principal wool depots, to wit: T. C. Peters of Buffalo, John Brown of Springfield, and H. Blanchard of Kinderhook.

Now, gentlemen wool-growers, do you say "Hurrah for the national fair, and the sweepstake premiums"? If so, send on your names as competitors for 1850. — *Ed. Cul.*

TIME FOR APPLYING MANURES TO MOWING FIELDS.

The following is extracted from the report of the committee on improvements of the Plymouth Agricultural Society, Hon. Morrill Allen, chairman. In England, where the climate is very moist, the best time to apply manure to mowing lands, is immediately after the hay is taken off; and this period is found to be the best time in this country, when it is very wet immediately after the crop is removed, as the rowen soon starts up and shades the manure; but if the weather should be dry and hot, as is usually the case, much of the manure would be wasted by evaporation. We copy from the report.

Several years since, we offered premiums for experiments to determine the best time to apply manure to mowing fields. This would seem an easy experiment, and the result more certain than in many other cases. Two experimenters, however, came to different conclusions, and it was judged advisable to renew the offers. Unfortunately these offers have called forth no competition. There is but one applicant, Mr. George W. Wood, of Middleborough; and he has failed of conducting the experiment in all respects according to the rules given.

It does not appear in his statement that he weighed any beside the product of the land manured in May and August till the present year. All should have been carefully weighed the second year. The comparisons of that year would have been quite as important as those of the present. The object of the requisition to weigh this year was to ascertain the ultimate influence of the applications in different months. It appears that one eighth of the acre selected was lower and moister land than the residue. This circumstance would manifestly make the comparison unjust, and give the moist plat a greater or less yield, according to the character of the season. Owing to the neglect of weighing the products of the several plats the second year, we have no means of full comparisons, excepting between the months of May and August. The applicant states that the plat dressed in August was moister land than that dressed in May, therefore favored by the character of the past season. Notwithstanding this circumstance, the aggregate amount of hay produced on the land dressed in May was ninety-three pounds more than that dressed in August. We have supposed that spring dressing would generally produce the greatest amount of grass; but it is not a convenient season either for the preparation or the application of manure to mowing fields. The general practice will properly be to dress mowing grounds the last of summer and in the autumnal months. According

to the experiment now before us, it would seem that some preference should be given to the month of August; but the influence will be nearly as great in any of the fall months, and farmers may consult their convenience, if they will be true to their interest, and apply an abundance of manure in some of the months. The committee think in plain and easy processes there should be strict compliance with rules. In view of Mr. W.'s omissions, the award of the premium is withheld, and a gratuity recommended of six dollars.

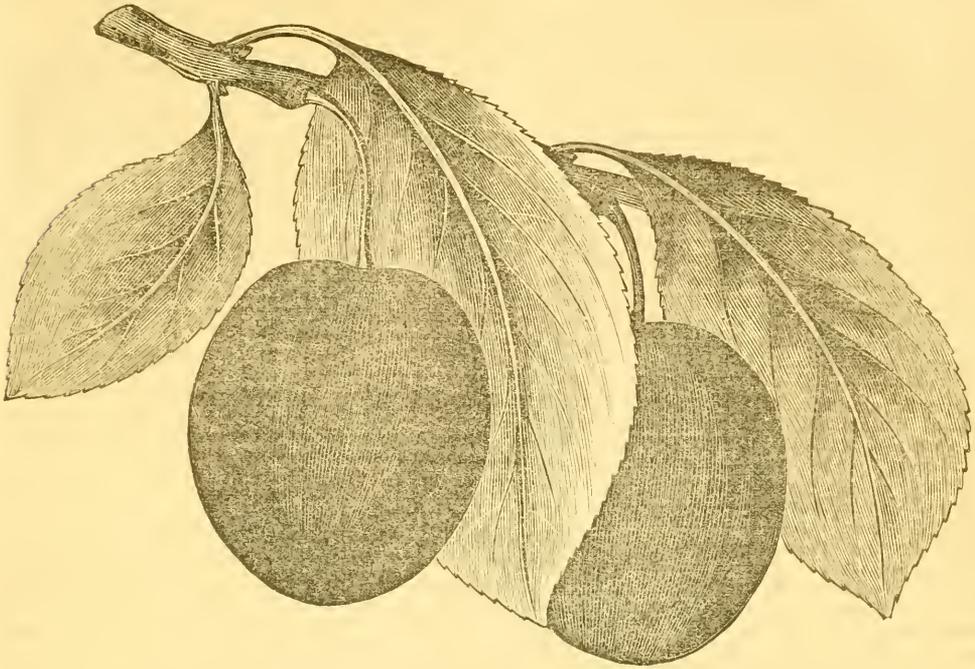
REMARKS ON DRAINING.

We all well know that wheat and other grains, as well as grasses, are never fully developed, nor produce good seed, when the roots are soaked in moisture. No man ever raised good wheat from a wet or moist subsoil. Now, many farms of this country, though at times during the summer they appear dry, and crack open on the surface, are not in fact dry farms. On the contrary, for nine months out of twelve, they are moist or wet; and we need no better evidence of the fact, than the annual freezing out of the plant, and consequent poverty of many crops. Need we say more to convince you of the necessity for draining your farms?

Now comes the question, How is this great good to be accomplished? What is the best method? What will it cost? And above all, what will it pay? These inquiries we will endeavor to meet. The statements, though brief, will doubtless lead you to renewed inquiries, and an active search for information.

The inquiry, How is this great good to be accomplished? What is the best method? will lead me to speak of various probable localities, each of which needs a different treatment. Thus we have in several of our towns portions that may be called *bogs*, being generally too wet to sustain the weight of a man, and where the water seems to rise from below. These lands are very retentive of moisture, acting like a sponge; but when drained, are often found to be very fertile and productive. To drain lands of this description, the first important step is, to ascertain the nature of the strata of earth, which the nearest high grounds may possess, in order to know whether the main supply of water does or does not flow from them. In almost all cases, such is the case, and leads us at once to cut a drain, or ditch, just above the level of the bog on the higher ground, and so deep as to intercept the waters as they descend, and by means of this ditch to lead them off towards the lowest point, thus arresting the supply of water, collecting it into one channel, and cutting it off from its usual ramifications through the bog. In time, the bog will have become so firm as to be traversed readily, though it remains wet and marshy. Smaller open drains, or ditches, should now be dug from the lowest point of the bog, to be connected with the deeper and larger ditch on the higher ground, the connection to be made at the greatest depression of the latter. Smaller lateral ditches may now be cut, leading into the main; and thus the bog will be drained and rendered fit for cultivation. — *American Agriculturist.*

A BIRD'S-EYE VIEW OF THE UNIVERSE. — Suppose this earth to be a ball of one foot in diameter; on that scale of proportion the sun would be one hundred feet in diameter, and the moon three inches. The sun would be two miles from us, — the moon thirty feet — Jupiter ten miles from the sun, and Herschel forty miles. The loftiest mountains upon the surface of the earth would be one eightieth of an inch in height.



MANNING'S LONG BLUE PRUNE PLUM.

The origin of this valuable plum is uncertain. Mr. Manning procured the tree from Landreth's nursery. And although it has been known to the public for a number of years, it has not generally been duly estimated. The size is good, the quality excellent, and its long keeping on the tree gives it an important advantage, for the market, over transient fruits that quickly pass away.

The fruit is quite large; oval, with slight suture; stem long and slender, set in a slight depression; the skin a dark purple, or nearly black, covered with a thick blue bloom; the flesh yellowish, firm, rather juicy, of a rich, sweet, sprightly flavor. Freestone. Ripens in September. It bears carriage well, and is well adapted to the market. The tree is a prodigious grower and great bearer.

FENCE POSTS.

We are often asked for the best method for preparing fence posts.

When practicable, always put the upper or limb end of the post in the ground, thus reversing the position in which it grew. The valvular arrangement of the capillary tubes of wood is such, that the moisture from the ground will rise if placed root end down, and thus assist to decompose the wood; but if the post is reversed, the moisture will not rise, and thereby the decay will in part be prevented.

As additional security against decay, any of the following may be adopted:—

Insert the end of the post intended to be placed in the ground, in a weak solution of corrosive sublimate, to the depth of its intended insertion: this is called *kyanizing*; and if thoroughly done, so that the

wood be saturated, the bottom will outlast the upper part of the post.

Burn the lower end of the post, and while hot, plunge it into melted tar, or petroleum: coal tar will answer.

If the end of charred posts be soaked in a solution of sulphate of iron, (common copperas,) for one week before being placed in the ground, they will last for a lifetime. The tops of posts should be tarred after they are in the ground, and the sun will cause the tar to enter the grain of the wood, and thus close it against rain, insects, &c. — *Working Farmer*.

PREPARATION OF THE SOIL FOR SEEDS.

The ground for the reception of fine seeds of vegetables should be broken up in the preceding year, and well manured in autumn, and rendered fine in spring by repeated ploughing, and harrowing, or raking. Plough and manure deep, for deep-rooted vegetables; but manure near the surface only for all others. Potatoes and Indian corn answer well, and produce large crops in ground newly broken up. Very fine seeds should be sown in a newly-prepared, fresh soil, and covered only a quarter of an inch deep; larger seeds deeper in proportion to their size; and the ground to be immediately trodden hard, or rolled with a heavy roller. This enables the earth to preserve its moisture at its surface, where at the same time the seeds may receive the necessary degree of heat from the sun, and vegetate at once, striking root downwards. Fine seeds, if sown too deep, are liable to perish. — *Kenrick's Orchardist*.

There are twenty-five thousand known species of fishes.

ADVANTAGE OF RAILROADS TO AGRICULTURE.

There is a prejudice among farmers against railroads. When so managed as to partake of the odious features of a monopoly, it is proper. But if, on the other hand, they are well managed, that is, made to fulfil the object of their construction, — the accommodation of the public, — these prejudices are wrong, for they are then of vast importance to the farmers.

If considered only as a means of rapid transit for passengers through a country, they would be of comparatively little use; and it is in that light they have been usually regarded. But when made to convey freight, and at reasonable rates, they become a very important element in conducing to the profits of farming. Our products are valuable in proportion to the cheapness and facility whereby they may be transported to market. The great consumers of the agricultural products of this state are New York and the New England States; and for nearly half the year we have no means of reaching them, except by railroad. It has only been about three years since the absurd restrictions which had been placed upon the Central line have been removed, so that freight could be carried. Previous to that time, our fresh pork, poultry, and butter were sold at a low figure, because we were shut out of those markets where these articles are in demand, during the winter, for daily consumption. The average ruling price for butter was ten cents, fresh pork \$3 per hundred, and poultry no demand at all. But as soon as the roads were allowed to carry freight, and long before they were prepared for the business, an advance took place in all of these articles, which has been steadily maintained. The rise upon fresh pork has been equal to \$2.50 on each hog fattened for market; upon butter, two cents per pound, and upon eggs, poultry, beef, mutton, and cheese, it has been equally large. Of this advance of price there can be no doubt, and it is equally certain that it has been caused by the facilities of transportation furnished by railroads in this state and east.

Let us see now what the farmers have really gained by these roads.

According to the state census of 1845, the whole number of hogs was	1,584,344
Allow for stores, one third, and the number fattened would be about	1,000,000
Deduct for home consumption, say one third, or	<u>300,000</u>
Leaving for market that year	700,000

The natural increase would be large, but increased price would stimulate production; so that it is safe to assume that the number of hogs in this state to be fattened for market this year will exceed 1,000,000, two thirds of which will be so situated as to be affected in price by one or other of our railroads. This would give, say 700,000, which, allowing an advance from former rates of only \$2 per hog, would give \$1,400,000 for only one branch.

Of butter, there was made during the year 1835	79,501,733 lbs.
Deduct for home consumption, one third, say	<u>26,000,000</u>
Balance for market, say	53,000,000 lbs.

At least two thirds of this, say 36,000,000 lbs., experienced a rise from the beneficial operations of the roads. The advance upon this was equal to two cents per pound, say \$720,000, making a clear gain per annum to the farmers of this state of over two millions of dollars in but two articles of farm produce. Upon other articles there has been a large gain, so that it is safe to say, that for the current year the farmers will be benefited by means of rail-

roads, as a means of transportation of farm products, at least three millions of dollars. The sum, at first sight, seems large; but we are persuaded it falls below, rather than exceeds, the true amount.

But the benefit does not stop here; for a very great stimulant is given to agricultural improvement, and land is made to yield much larger and better crops; so that, in fact, our farms are practically enlarged, not by adding more acres, but by adding more labor and skill to the soil. By careful husbandry, we may treble the average products of most of our crops, and not then arrive at any thing like the full capacity of our farms. And is it not better to add to our land by better thrift in farming, than to sell out and be constantly seeking new and cheap lands?

It has been well and often said, that he who makes two blades of grass grow where but one grew before, is a public benefactor. And if railroads, when properly managed, are the means of adding largely to the direct profits of the farmer, as we have endeavored to show they do, then they are entitled to be regarded with favor rather than jealousy or dislike, by those who are so much benefited; and so we trust they will be in future, and their number rapidly increased. — *Wool-Grower*.

RAILROADS.

The favorable influence of railroads on agriculture is becoming more and more known and appreciated in all parts of the country. The article below shows the immense advantage to the farmers in the interior in having their animals carried to a market in a short time, at a moderate expense, and without injury to the animals which they must necessarily suffer in a long and fatiguing journey.

By railroads and steamboats, sections once remote are now, as it were, brought near to good markets; for live stock and various other productions can be quickly and cheaply carried to market. This affords all the advantages of nearness to market, by the old method of travelling and transportation. We copy from the Lowell Courier,

THE CATTLE TRAIN. — The cattle train, last night, numbered two hundred and fifty cars. It came over the Northern road in four sections, over the Concord road in two, and in the same manner over the Nashua and Lowell. The first section arrived in Lowell about quarter past 12, bringing ninety-eight cars, eighty-four of which were laden with cattle, horses, and sheep. About 3 this morning, the balance, one hundred and five, came in. There were seventy-four cars of cattle, horses, and sheep, making, in the whole train, one hundred and fifty-eight cars of live stock! There were one hundred and eight cars started from the Central road, fifty-eight of which came this way, and the other half went over the Fitchburg road. We learn that five hundred sheep were left over at Montpelier, and some twenty car loads would have come down from the Passumpsic, had there been accommodations.

SALT IN AGRICULTURE.

We copy the following from the Rev. Morrill Allen's report on improvements, to the Plymouth Agricultural Society.

A carefully-conducted experiment has been made by Horace Collamore, of Pembroke, in the application of salt; the result of which shows no influence to encourage to much extent the use of the article as

a fertilizer. In an experiment, several years ago, by Mr. Alden, of East Bridgewater, the results were something more favorable; but there was not enough efficacy manifested in that instance to justify any thing like a general use of salt as a manure. From observation we think it highly beneficial, and a very enduring fertilizer on some soils, and on some that it produces no visible effect. Trials on a small scale will best serve to show where it can be used with profit. In the orchard and nursery, it can always be used with benefit, as a preventive of insects, care being taken not to have it come in contact with tender trees, as it would kill them much quicker than insects. In the culture of plants of marine origin, salt may be pretty freely used, and with great benefit. The applicant for the premium appears to have complied with all the conditions of the offer, and therefore ought to receive it, though little or no benefit accrue to the public. To Mr. Collamore is awarded ten dollars.

INFLUENZA IN HORSES.

Eds. Cultivator: The disease I am about to consider under the above appellation, is better known among horsemen by that of *distemper*. From the real nature and proper treatment of this affection not being properly understood, the number of horses which annually fall a sacrifice to its influence is almost beyond conception.

The character of this, like many other diseases, varies according to the season of the year, as well as the state and condition in which the animal is placed at the time of being attacked. It most frequently occurs when the weather is changeable, particularly in the spring and autumn months; and from being prevalent in some seasons more than in others, it has in consequence been considered to be a contagious disease; but the most probable cause appears to me to be sudden atmospheric changes, as from dry to wet, and from hot to cold. In its simplest or least complicated forms, it bears a resemblance to common cold, (catarrh;) the mucous membrane of the "air passages" is its primary and principal seat, generally commencing in the chambers of the nose, and upper part of the throat, extending in some instances down the windpipe, and its ramifications, the bronchial tubes; or it may go still farther, and ultimately involve the whole substance of the lungs.

In some subjects, its attack is very slight. The horse is first observed to be languid and dull; he refuses part or the whole of his feed of grain — occasionally coughs; he is incapable of undergoing any considerable exertion; signs of soreness of his throat are soon observed; the food cannot be swallowed as usual; the slightest compression of the throat makes the animal flinch, and sets him coughing; the mouth is dry, and the membranes of the eye and nose are somewhat unusually red. In some severe cases, the soreness of the throat causes the animal to carry his neck stiff, with his nose projected; the food and water, when attempted to be swallowed, is forced back again through the nostrils; the glands about the throat are more or less swollen; the breathing is short, difficult, and painful, and attended with a peculiar hoarse sound in the throat. In other instances, the membrane lining the lungs (bronchiæ) receives the principal brunt of the disease; the horse now stands in his stall dull and listless, in one particular place; the breathing is short and quick, (but not deeply drawn;) the pulse is accelerated and weak; skin and legs rather warm than cold; membrane of the eye exhibits rather a yellowish-red cast; the discharge from the nose is also of a bilious hue.

It is not my intention in this article to attempt a description of all the characters that this disease occasionally assumes, but briefly to notice its most prominent features.

In determining the treatment of "influenza," regard must be paid to the seat and extent of the derangement constituting it, always bearing in mind that the tendency and certain issue of this disease is debility. Hence, in the generality of cases, the most cautious treatment is necessary; for if active measures are resorted to, such as large and repeated blood-letting, rowels, strong physic, &c., the horse becomes debilitated, his extremities (legs) enlarged and dropsical, and he either dies of "yellow-water," (dropsy,) or remains for a long time in a low and weak state.

At the commencement of the disease, it is necessary to keep the animal in a large stall, without exercise; and in the summer let the temperature be kept as cool as possible, cautiously avoiding a direct current of air. The diet may consist of scalded bran and hay, with tepid water, in which a few drachms of nitrate of potash (nitre) are dissolved, always within his reach; or it may be sweetened with honey or molasses, providing the patient likes it. The horse should be well wiped or brushed, and clothed warmly, particularly when he feels cold and shivers. If the bowels are constipated, two ounces of cream of tartar may be given in the drink every morning; and should the excretions appear pent up, the hand, oiled, is to be introduced, and the rectum emptied, and afterwards a clyster given, composed of gruel, linseed-tea, or a decoction of slippery elm.

When horses are of great value, I have suspended under their throat bags containing bran and linseed meal poultices, and renewed them every two hours, keeping the animal at the same time comfortably clothed. Or the throat may be well fomented with water as hot as a man can bear his hand immersed in, and steaming his nose with the vapor arising from it; after which the glands about the upper part of the windpipe should be well rubbed with the following liniment: alcohol one pint, camphor one ounce, soft soap four ounces, spirit of hartshorn, (water of ammonia,) two ounces. Simple means, such as these, will, in the generality of cases, be followed by the happiest result — a complete restoration to health. ARTHUR S. COPEMAN, *Utica*.

— *Albany Cultivator*.

NEW DISCOVERY IN AGRICULTURE.

An extraordinary fact was mentioned the other day at the sitting of the Academy of Sciences. One of the members stated that the Agricultural Society of Brest had, upon the proposition of a member of the committee, sown some wheat upon land without any preparation of ploughing or digging, and in one of the worst soils possible, and, after having merely walked over the ground to press the grain on the surface, had it covered with fresh straw to the thickness of two inches. The product was, it is asserted, more abundant and much superior in quality to wheat raised from the same seed in the ordinary way. Some ears of wheat, the seed of which had been placed upon window glass covered with straw, were also exhibited.

FLEETNESS OF THE REINDEER. — In consequence of the Norwegians making a sudden and unexpected irruption into the Swedish territories, an officer was despatched with a sledge and reindeer to Stockholm, to convey the intelligence; which he did with such speed that he performed 124 Swedish miles (about 800 English) in 48 hours; but his faithful animal dropped down lifeless on the Biddarhustorget, just after his arrival in the capital. The bearer of the news, as it is said, was in consequence ennobled, and assumed the name of Rhens-jurna, (Reindeer Star.) — *Brooks's Winter in Lapland*.

Domestic Department.

CHEMISTRY FOR GIRLS.

BY E. THOMPSON, M. D.

SOMETHING THAT EVERY WOMAN SHOULD READ.—This is properly styled a utilitarian age, for the inquiry, "What profit?" meets us every where. It has entered the temples of learning, and attempted to thrust out important studies because their immediate connection with hard money profits cannot be demonstrated. There is one spot, however, into which it has not so generally intruded itself—the female academy—the last refuge of the fine arts and fine follies. Thither young ladies are too frequently sent, merely to learn how to dress tastefully and walk gracefully, play, write French, and make waxen plumes and silken spiders—all pretty; but why not inquire, "What profit?"

I take my pen not to utter a dissertation on female education, but to insist that young ladies be taught chemistry. They will thereby be better qualified to superintend domestic affairs, guard against many accidents to which households are subject, and perhaps be instrumental in saving life. We illustrate the last remark by reference merely to toxicology.

The strong acids, such as nitric, muriatic, and sulphuric, are virulent poisons, yet frequently used in medicine, and in the mechanic arts. Suppose a child, in his rambles among the neighbors, should enter a cabinet shop, and find a saucer of aqua fortis (nitric acid) upon the work bench, and, in his sport, seize and drink a portion of it. He is conveyed home in great agony. The physician is sent for; but ere he arrives, the child is a corpse. Now, as the mother presses the cold clay to her breast and lips for the last time, how will her anguish be aggravated to know that in her medicine chest, or drawers, was some calcined magnesia, which, if timely administered, would have saved her lovely, perchance her first and only boy! O, what are all the bouquets and fine dresses in the world to her, compared with such knowledge?

Take another case. A husband, returning home on a summer afternoon, desires some acidulous drink. Opening a cupboard, he sees a small box, labelled "salts of lemon;" and making a solution of this, he drinks it freely. Presently, he feels distress, sends for his wife, and ascertains that he has drank a solution of oxalic acid, which she has procured to take stains from linen. The physician is sent for, but the unavoidable delay attending his arrival is fatal. When he arrives, perhaps he sees upon the very table on which the weeping widow bows her head, a piece of chalk, which, if given in time, would have certainly prevented any mischief from the poison.

Corrosive sublimate is the article generally used to destroy the vermin which sometimes infest our couches. A solution of it is laid upon the floor in a tea-cup, when the domestics go down to dine, leaving the children up stairs at play; the infant crawls to the tea-cup, and drinks. Now, what think you would be the mother's joy, if, having studied chemistry, she instantly called to recollection the well-ascertained fact, that there is in the hen's nest an antidote to this poison? She sends for some eggs, and, breaking them, administers the whites. Her child recovers, and she weeps for joy. Talk to her of novels: one little book of natural science has been worth, to her, more than all the novels in the world.

Physicians in the country rarely carry scales with them to weigh their prescriptions. They administer medicines by guess, from a teaspoon or the point of a knife. Suppose a common case: A physician

leaves an over-dose of tartar-emetie, (generally the first prescription in cases of bilious fever,) and pursues his way to another patient, ten miles distant. The medicine is duly administered, and the man is poisoned. When the case becomes alarming, one messenger is despatched for the doctor, and another to call in the neighbors to see the sufferer die. Now, there is, in a canister in the cupboard, and on a tree that grows by the door, a remedy for this distress and alarm—a sure means of saving the sick man from threatened death. A strong decoction of young hyson tea, oak bark, or any other astringent vegetable, will change tartar-emetie into a harmless compound.

Vessels of copper often give rise to poisoning. Though this metal undergoes but little change in a dry atmosphere, it is rusted if moisture be present, and its surface becomes covered with a green substance—carbonate or the protoxide of copper, a poisonous compound. It has sometimes happened that a mother has, for want of knowledge, poisoned her family. Sour krout, when permitted to stand for some time in a copper vessel, has produced death in a few hours. Cooks sometimes permit pickles to remain in copper vessels, that they may require a rich green color, which they do by absorbing poison.

Families have often been thrown into disease by eating such dainties, and many have died, in some instances without suspecting the cause. The lady has certainly some reason to congratulate herself upon her education, if, under such circumstances, she knows that pickles rendered green by verdigris, are poisonous, and that the white of an egg is an antidote.

Illustrations might be multiplied, but our space forbids. Enough has been shown, we hope, to convince the utilitarian that a knowledge of chemistry is an important element in the education of the female sex; that without it they are imperfectly qualified for the duties devolving upon them in the domestic relation, and poorly prepared to meet its emergencies.—*Literary Gazette.*

TO KEEP A STOVE AS BRIGHT AS A COACH-BODY, BY TWO APPLICATIONS A YEAR.—Make a weak alum-water, and mix your "British Lustre" with it, perhaps two teaspoons to a gill of alum-water: let the stove be cold, brush it with the mixture, then take a dry brush and dry lustre, and rub the stove till it is perfectly dry. Should any part, before polishing, become so dry as to look gray, moisten it with a wet brush, and proceed as before.

Boys' Department.

TAME FISHES.—A correspondent of the Boston Journal, writing from Hingham, tells the following singular story:—

We found conveyances on the wharf in Hingham, to take passengers to the hotels at the head of Nantasket Beach, and to every other place. While seated on the new-mown hay, under fine oaks and elms over one hundred years old, we felt satisfied with our situation, compared with those whom we left frying in Boston. We took the younger members of the party to visit Wear River Iron Foundry, and the pond near it, and Miss Thomas's *pets*—the fish and turtle in it. This child of nine years has fed these fish four years with bread. She was first amused by throwing the crumbs into the water when she ate her meals on the stones of the bank; and seeing the fish dart for them, she took an interest in the fish, and has fed them regularly since. Strange as it may seem, they know her voice. On our

requesting her to feed and call them, she did so, and called, "Tute, tute, tute," several times. Directly we could see the turtle popping their heads up over the pond, then swim to her, and take the bread from her hands. The fish did the same; several hundred of which consisting of large black pouts, six to eight inches long, shiners and minnows of all sizes, flocked around her, perfectly tame. The turtles were of two kinds, "snappers" and the common yellow spotted ones. This was a most interesting sight, and well worth a long ride to see it. The distance is but half a mile from the Old Colony House, and depot of the railroad near it. The taming of these fishes shows what kindness and regular treatment will do, aided by a gentle voice, in taming animals which have been considered stupid. We promised to send Miss T. some gold fish to add to her pets. She, by the way, allows no one to feed the fishes but herself, and no one to catch them. — *Selected.*

Health.

EXPANDING THE CHEST. — Those in wealthy circumstances, or who pursue sedentary employments within doors, generally use their lungs but very little, breathe but very little air into the chest, and thus, independently of positions, contract a wretchedly narrow, small chest, and lay the foundation for the loss of health and beauty. All this can be perfectly obviated by a little attention to the manner of breathing. Recollect the lungs are like a bladder in their structure, and can be stretched open to double their ordinary size, with perfect safety, giving a noble chest, and perfect immunity from consumption. The agent, and the only agent required, is the common air we breathe, supposing, however, that no obstacle exist, external to the chest, such as lacing, or tying it around with stays, or tight dress, or having shoulders lay upon it. On rising from the bed in the morning, place yourself in an erect posture, your chest thrown back, and shoulders entirely off the chest; now inhale or suck in all the air you can, so as to fill the chest to the very bottom of it, so that no more air can be got in; now hold your breath, and throw your arms off behind, holding in your breath as long as possible. Repeat these long breaths as many times as you please. Done in a cold room is much better, because the air is much denser, and will act much more powerfully in expanding the chest. Exercising the chest in this manner, it will become very flexible and expansible, and will enlarge the capacity and size of the lungs. — *Common School Advocate.*

THE FORCE OF IMAGINATION. — A Lucchese peasant, shooting sparrows, saw his dog attacked by a strange and ferocious mastiff. He tried to separate the animals, and received a bite from his own dog, which instantly ran off through the fields. The wound was healed in a few days, and the dog was not to be found; and the peasant, after some time, began to feel symptoms of nervous agitation. He conceived that the dog, from disappearing, was mad; and within a day or two after this idea had struck him, he began to feel symptoms of hydrophobia. They grew hourly more violent; he raved, and had all the evidences of the most violent distemper. As he was lying, with the door open, to let in the last air that he was to breathe, he heard his dog bark. The animal ran up to the bed-side, and frolicked about the room. It was clear that he, at least, was in perfect health. The peasant's mind was relieved at the instant; he got up with renewed strength, dressed himself, plunged his head into a basin of

water, and thus refreshed walked into the room to his astonished family. The statement is made in a memoir by Professor Barbautini; and it is not improbable that many attacks of a disease so strongly dependent on the imagination, might be equally cured by ascertaining the state of the animal by which the bite was given.

AN ARTIFICIAL LEECH. — We learn from an article in the Paris Journal des Debats, quoted in Tuesday's Courier des Etats Unis, that an important discovery, which is likely to be of the greatest service to humanity, occupies at this moment the attention of the French scientific world. It is a mechanical leech, (*sangsue mecanique.*) which M. Alexander, civil engineer, already celebrated for his useful discoveries, has submitted to the judgment of all the scientific bodies, which, after satisfactory trials, have caused this *sangsue* to be adopted in all the hospitals, after having proved, not only the immense economy of its use, but, what is better, the decided advantages which it has over the natural leech, often so rare, always repugnant to the patient, and sometimes dangerous. The president of the French republic has given orders for the supply of the apparatus in every commune where it may be found serviceable by indigent patients.

Mechanics' Department, Arts, &c.

A DRY CLAY BRICK PRESS. — We recently examined, in the hall of the Franklin Hotel, Chestnut Street, a model of one of the most ingenious and successful machines for brick making, that has ever yet been produced. It is the invention of Mr. T. Culbertson, and is patented by Messrs. Culbertson & Scott, of this city. Already one of these presses is in full action near New Orleans, where the Biloxi Steam Brick Company have entered into contract to supply thirty millions of bricks — chiefly for the building of the new custom-house in the great southern capital and port. The machine is very strong, simple in its construction, has but few wearing surfaces, requires but little power to drive it, and but a few hands to attend it. It is self-feeding and self-delivering, and operates with great certainty and accuracy, and will make with ease 25,000 brick per day, requiring no preparation of the clay other than pulverizing or running through rollers attached to the machine, and no yard room for drying, as the bricks are sufficiently hard to stack up in the kiln at once. The brick are of a uniform size and shape, are harder, smoother, and stronger, and, being less porous, will absorb much less water; and (it is also a well-established fact) will stand fire better than those made in the ordinary way. The pressure, being gradual and continuous, allows the air to escape freely as the clay is forced into the moulds; and as each mould passes twice under the cylinder, first in one and then in the other direction, receiving clay from the hoppers each way, the brick is not only full and perfect in all the corners and edges, but the different particles of clay are by this rolling or kneading process completely united. By a slight alteration of the moulds alone, brick of any desired size or shape may be made for paving, lining cisterns, building arches, &c. As the works will all be under cover, brick can be made as well in wet as in dry weather; they can also be made earlier in the spring and later in the fall than in the ordinary way.

A large "brick press" is about to be erected immediately at the extensive brick fields of Messrs. C. & S., at Pea Shore, four miles from Camden, N. J., in which we learn that the enormous pressure of

one hundred tons will be applied to the formation and compression of each brick. — *Monthly American Farmer.*

NEW INVENTION IN BAKING. — The Glasgow Citizen (Scotch paper) says that a machine has been invented in that city which both kneads the dough and moulds the loaves into the required shape, ready for the oven. One machine, not quite a yard in length and eighteen inches in breadth, by the attendance of one man, accomplished as much work as five bakers, and the bread was of the best quality. The Citizen also says that "by a new and original process of mixing and kneading, which can be done either with or without barm, (yeast,) the usual loss of weight attributed to evaporation in 'raising the sponge' is avoided, and a great saving of flour, as well as time and labor, is effected."

ANALYSES OF MANURES.

At a late meeting of the Highland Agricultural Society, Mr. Finne spoke of the great advantage which had been derived by farmers, in Scotland, from the analyses of portable manures, upon which, he estimated, nearly one half of the green crop of that country is dependent. The amount of guano, for instance, imported in 1837, was upwards of 220,000 tons. Great adulteration had been practised with guano; and bone-dust had been mixed with ground oyster-shells. Various manufactured manures, of the constituents of which the farmer could not be acquainted, were offered for sale. In illustration, he related the following: "Some years ago, I joined with two or three farmers in the purchase of some tons of nitrate of soda. None of us derived any benefit from the application of it. Most fortunately I had some left — got it analyzed by Mr. Kemp, at the college; and when the secret was explained, it was to a great extent mixed with common salt. I heard of a cargo shipped to a party in London; a chemist was ordered to examine it before taking it from the ship. The adulteration was detected, and immediately the ship load was ordered off to Scotland, and sold amongst the farmers. I once purchased a quantity of guano from a party in Leith. Professor Johnston had given an analysis of it; but the sample sent to him had been very different from the stock. I found, upon taking delivery, that all was not right. I then had a sample from the stock analyzed, and had no difficulty in procuring an abatement of ten per cent. from difference of value. I cannot conceive how any agriculturist who expends his hundreds a year upon portable manures is justified in applying them before being tested, and would grudge a few shillings per annum to obtain a chemist of skill who could satisfy him as to the purity of the article upon which he is not only expending a large sum of money, but upon the genuineness of which his green crop, and every succeeding crop in the rotation, is dependent; for, without a knowledge of the nature and properties of the materials employed by the agriculturist, it is evident that the result of many of the laborious and extensive processes incident to his daily occupation must be a matter of mere chance — thus contributing more than any thing else to the precariousness of the profits upon which his prosperity depends. I may be told this is a tenant's question, and let him look after his own interest, and he will fare the better; but I hold whatever is necessary for the tenant cannot be dispensed with by the landlord; and if, from not having a ready and cheap way of having his manures analyzed, the loss of a crop is the consequence, is not the landlord's rent endangered? But I would re-

spectfully submit that these portable manures, now so important an element in good farming, and for which I would say a chemist's services are required, leaving every other consideration, have done much already for the proprietors of land." — *Canadian Agriculturist.*

THE BEGINNING OF GOOD MANAGEMENT.

Mr. Editor: Although considerable improvements have been made in farming in this country, still it is just enough to remark that our agriculture, with very few exceptions, is not what it ought to be. More thorough and better modes of culture should be adopted by the great body of our farmers, than those now practised. If we would adopt for our motto, *Be Thorough*, — that is, if, whatever we undertake to perform, we would take especial care that our work be done in a manner as nearly perfect as possible, — it is easy enough to foresee that we should receive a liberal reward for our labor. A field imperfectly ploughed will not often afford a fair return, though ever so fertile; then ask the skilful farmer how little is the difference in expense, where the work is most thoroughly done, or where the same is performed in a hasty, slovenly, and imperfect manner.

Let the farmer who never attempted to increase his manures by artificial means, begin — yes, we say *begin* — good management in this particular; if he cannot haul a hundred loads of muck the first year, he certainly can ten; and who can calculate the benefits which may be gained, both by himself and the community, by beginning a course of good management?

Let the farmer who neglected to hoe either his garden or his potatoes at the right time, and in the best manner possible, through a press of other business, or from whatever cause, resolve to avoid these errors in the future. Certainly we would not censure harshly an industrious farmer for an error or two, which he is desirous of correcting; but we would hope that by a better arrangement of his business, and a better system of management, he may hereafter be able to avoid all similar errors.

In the construction of fences, the farmer should act wisely. The difference in expense between what would be called a *tolerably good fence*, and one that is absolutely impregnable, is a mere trifle; and how often do we find that unruly cattle will break over a *tolerably good fence*!

Let the farmer who does not take an agricultural paper, subscribe for one forthwith. Public opinion is beginning to be in favor of agricultural papers and agricultural improvement; and may we not hope that the time has nearly come, when our farmers generally will be eager to adopt more improved modes of husbandry — when science shall triumph over prejudice and ignorance, and when the best interests of our country shall be more thoroughly understood and supported? J. E. ROLFE.

RUMFORD, September, 1849.
— *Maine Farmer.*

IRON FOR APPLE-TREES.

A correspondent of the Albany Cultivator, writing from Fredericksburg, Va., says, "A friend, who has a large orchard of 'Raule's Janette apple,' has ten trees, upon one corner of the orchard, which always produce fruit a third larger, and flavor so much superior, that it was supposed, by all who saw and ate the apple, that they were a superior variety of the Janette. This spring I examined the soil, and found that a vein of iron ore passed just under the ten trees, so near the surface that it had been

ploughed and worked up with the top soil. A variety of the large Blue plum, growing upon the same ground, is also very fine: while grafts taken from the same plum-trees, and worked upon stocks grown on different soil, prove worthless."

THE HORSE.

The horse is a noble animal, and is distinguished for his intelligence and sagacity; and with proper treatment, he is remarkable for his docility and obedience. This animal is not only necessary and useful in a high degree, but he contributes largely to the pleasures of man. What a shame, then, that he should so often be subjected to the harsh treatment of brutal masters! The following article, which we copy from the Philadelphia Dollar Newspaper, contains valuable instruction on the treatment of this noble animal.

There is no domestic animal, perhaps, more subject to blemishes than the horse; none whose usefulness depends more upon proper treatment; and none, when rightly managed, which contributes more to satisfy the wants of mankind. A few suggestions on this subject is the object of this communication. The best way for a man, when about to purchase a horse, if he be not a good judge of one, is to take him for a while on trial. If the vender is unwilling to let him go for that purpose, then be unwilling to purchase him; for, as a general rule, in such cases, the horse has some defects which you would not discover, except by trial. If, when using him in various conditions and circumstances, he is found to be sound and good in every respect, then it can be pretty safely relied on that he is a good horse. If all mankind were perfectly honest to tell the whole truth concerning the horse, there would be no necessity of a resort to this expedient; but as the generality of men are, so we must take them. People who have dealt much in horses generally understand the various defects to which they are liable, and can easily discover them by a little trial, although they may not at first be visible.

In judging by the outward appearance of a horse, his size should be proportioned to the work in which he is chiefly to be employed. Small horses are generally considered to be the toughest, and the cost of their keeping is less than large ones; so that they are the most profitable to keep, unless they are to perform very heavy work, as ploughing, carting gravel, &c. His head should be as small as the proportion of the animal will admit; his muscles smooth and fine; his eyes prominent and cheerful; his ears small and upright, and placed near together; his neck, from his shoulders, thick and deep, and, with a moderate tapering, should join the head in a comely manner; his shoulders, well thrown back, should extend to the neck with a gentle tapering; his chest should be deep and full at the girth; his thighs strong and muscular, and well formed; his hoof circular, and wide at the heel, neither disproportionably large, as it will make him clumsy and apt to fall; his body should be long and round, with the ribs extending well behind. In a word, symmetry and beauty should be sought in every part.

Particular attention should be given to feeding horses. The neglect of this is, doubtless, one great reason why we see many so mean and despicable.

The stable should be warm, and at all times well littered, as horses are often made lame by standing on a hard floor; besides, it adds very much to their comfort. They should be well curried every day, and in the winter, unless the stable is very warm, should be blanketed.

The horse should never be permitted to undergo any violent or excessive labor. All racing, and profuse sweating, therefore, should be avoided, as they cannot be indulged in with impunity; but it may sometimes be unavoidable that he should perform an unusual day's work, and that too, perhaps, in snow or rain. In such cases, particular attention must be given to his keeping previous to the time, as well as during the day. At night, let him be placed in a warm stable, on a good bed of straw. Then remove all dirt from his legs with soap and warm water. Curry him well, and smooth his hair down with a piece of cloth or sheepskin. Then wash his legs with vinegar or spirits, to which may be added a little melted lard, or oil. Give him a moderate supper, and after he has ate a while, let him be watered, which should never be done when he is sweaty, except he be allowed to drink only a very small quantity. In this manner the horse will be nearly as well prepared the next morning for another day's journey, as if he had done nothing on the preceding day.

It may be useless to say any thing on whipping horses; but this barbarous practice is so common, that a few words may not be inappropriate. It is contended by some that it is absolutely necessary, sometimes, to whip them. Experience and observation have generally convinced reflecting people that such a course is erroneous, and that it rarely fails to increase the faults which it was intended to diminish. Individuals, who indulge in using the lash, become accustomed to it, so much that they are hardly conscious when they do whip their poor beast, which, although, perhaps, almost ready to drop down with fatigue, cannot speak a word of complaint, nor shed a tear of grief to move the pitiless heart of its master. When we see an individual very harsh with his oxen or cows, as well as his horses, there we behold a very fractious and wild team. His oxen fear his voice and lash, and whenever they can, they will run away from him, as a man would from a tiger. His cows are no less fractious. They have to be put in the barn, and not unfrequently to have their legs tied before they can be milked. In such cases, no good ever results from whipping. Why not, then, restrain the temper and spare the lash? Do it once, conquer the passions once, and the next time it will be easier. Coax these animals, rather than compel them by the lash: it will be for your benefit, as well as theirs. Above all, spare the horse. If any thing will move the human sympathy of man, it is the sight of one of these domestic animals, which has nearly finished his life, and which has performed a great deal of hard labor under a tyrant for a master.

"His skin is sore with stripes, and he tottereth beneath his burden;
His limbs are stiff with age, his sinews have lost their vigor,
And pain is stamped upon his face while he wrestleth unceasingly with his toil;
Yet once more mutedly and meekly endureth he the crushing blow;
That struggle hath cracked his heart-strings,—the generous brute is dead.
Liveth there no advocate for him? No judge to avenge his wrongs?
No voice that shall be heard in his defence? No sentence to be passed on his oppressor?
Yea, the sad eye of the tortured pleadeth pathetically for him:
Yea, all the justice in heaven is roused in indignation at his woes:
Yea, all the pity upon earth shall call down a curse upon the cruel:
Yea, the burning malice of the wicked is their own exceeding punishment.
The angel of mercy stoppeth not to comfort, but passeth by on the other side,
And hath no tears to shed when a cruel man is damned."
HANOVER, N. H., 1849. M. F.

ACKNOWLEDGMENTS.

From Dr. W. Hosford, Orford, N. H., Coe's Golden Drop plums. These plums were well grown, but there was something peculiar in their appearance and taste. We thought this peculiarity might be owing to their having been touched by the frost. This is one of the very finest of plums, but it is late, and requires a warm soil and location, and a favorable season to come to perfection in this region. It may be kept long after it is ripe. We think there are but few situations where it will succeed well north of this latitude.

We have a half barrel of Early Purple potatoes, from Salmon Buckminster, Lyun. They are very acceptable, as those which we raised, last summer, from seed which Mr. B. gave us, were too good to keep. This potato is one of the very earliest, and of the best quality. It is considerably cultivated in New Hampshire, generally under the name of *Early Blues*. But it is purple, not blue, and Early Blue is the name of a very old, very early, and excellent variety with a rough skin; and it does not yield so well as the Purple, which yields well for so early a variety. It is as forward and good as the Early White Blue Nose, or Eastport potato, and more productive.

Grapes from Colonel Chase, and apples from Mr. Spaulding; and other presents will be noticed in our next number.

NOTICES OF PUBLICATIONS.

THE AMERICAN FLORA, and ILLUSTRATED NATURAL HISTORY, by Dr. Strong, published by Green & Spencer, New York, are among the most interesting and valuable periodicals of the day. The illustrations of these works are beautiful and accurate.

HOVEY'S MAGAZINE OF HORTICULTURE sustains its high rank for originality and accuracy. Each number contains several figures, and elaborate descriptions of fruits, foreign and native.

ANNUAL REPORT TO THE LOT HOLDERS OF THE CEMETERY OF SPRING GROVE, AND THE PUBLIC, for 1849.

REPORT OF THE AUTUMNAL EXHIBITION OF THE CINCINNATI HORTICULTURAL SOCIETY. We hope to glean some valuable facts from the doings of this association. Friend Ernst is the president.

THE FARMER'S ALMANAC, by A. Maynard, Phillips, Sampson, & Co., publishers. This work is the sixth number, under the author; and the publishers have good encouragement, and consider the work permanently established. Besides the usual astronomical calculations, this work contains much useful and interesting matter, and it is interspersed with blank paper for memorandums.

FOWLS. — We would call attention to the advertisement of CHOICE FOWLS on our cover. Mr. Coffin's show at the fair attracted much attention.

The way to gain a good reputation, is to endeavor to be what you desire to appear.

SINGING BIRD'S PETITION TO SPORTSMEN.

Wouldst thou have me fall, or fly?
Hear me sing, or see me die?
If thy heart is cold and dull,
Knowing nothing beautiful —
If thy proud eye never glows
With the light love only knows —
If the loss of friends or home
Ne'er hath made life wearisome —
If thy cheek has never known
Tears that fall from sorrow's moan —
If a hopeless mother's sigh
Brings no tear-drop from thine eye,
Thou mayst smile to see me die!

But if thou canst love the lay,
Welcoming the birth of May —
Or summer's song, or autumn's dirge,
Cheering winter's dreary verge —
If thou lovest beauty's hues,
Decked with light or gemmed with dew —
If, all meaner thoughts above,
Thou canst hope, and trust, and love —
If, from all dishonor free,
Thou canst Nature's lover be —
Spare her minstrels, — pity me!

M.

PHILADELPHIA, May, 1849.
— *Horticulturist*.

THE OLIO.

A man's first care should be to avoid the reproaches of his own heart; his next, to escape the censures of the world. If the last interferes with the former, it ought to be entirely neglected; but otherwise there cannot be a greater satisfaction to an honest mind, than to see those approbations which it gives itself, seconded by the applauses of the public. A man is more sure of his conduct, when the verdict which he passes upon his own behavior is thus warranted and confirmed by the opinion of all that know him. — *Addison*.

The difference between war and peace has been well defined by one of the ancients. "In the time of peace, the sons bury their fathers; in the time of war, the fathers bury their sons."

Of all vanities and fopperies, the vanity of high birth is the greatest. True nobility is derived from virtue, not from birth. Titles, indeed, may be purchased; but virtue is the only coin that makes the bargain valid.

"Poetry," says some one, "is the flour of literature; prose is the corn, potatoes, the meat; satire is the aquafortis; wit is the spice and pepper; love letters are the honey and sugar; and dunning letters are the emetics; letters containing remittances are apple dumplings."

TERMS. — THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18 $\frac{1}{2}$ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

THE POSTAGE

On this paper is only 1 cent, or 26 cents a year, within the state, or within 100 miles out of the state; and 1 $\frac{1}{2}$ cents, or 39 cents a year, beyond those distances.



DEVOTED TO AGRICULTURE AND ALL ITS VARIOUS KINDRED ARTS AND SCIENCES.

Honor waits, o'er all the earth, The art that calls her harvests forth.—BRYANT.

VOL. I.

SATURDAY, DECEMBER 8, 1849.

NO. 26.

S. W. COLE, EDITOR.

QUINCY HALL, BOSTON.

J. NOURSE, PROPRIETOR.

CLOSE OF THE VOLUME.

As we commenced the *New England Farmer* in December, the first volume now closes before the expiration of the year. In order to time with the year in future, the second volume will commence on the first Saturday in January.

All new undertakings may be regarded as experiments; but knowing the wants and the intelligence of the farming community, we commenced the *Farmer* with full confidence of success, and our expectations have been more than realized in the liberal encouragement we have received; and we shall enter upon another volume with renewed confidence.

Our numerous friends who have patronized us and aided in our circulation, and particularly correspondents and contributors who have generously furnished valuable matter for the paper, will please accept our grateful acknowledgments. We respectfully solicit our friends to continue their kind favors.

The character of this paper in being devoted exclusively to agriculture and rural affairs, and its compact form for binding, rendering it convenient for preservation and reference, with the neatness of its execution, all fitting it for an important place in the family library, give general satisfaction, and its low price places it at the disposal of all.

As the science and improved practice of agriculture are new subjects, but few points are settled to the general satisfaction of the most competent judges; and numerous subjects for consideration are before the community, that require close investigation from the most skilful in practice, and the most thorough in science.

We would invite the aid of all who can contribute to the general fund of knowledge for the promotion of improvement in the various industrial branches connected with that great and leading branch, the culture of the soil, which is the basis and support of all.

Agriculture is every year assuming more and more importance, and this spirit of reform will prevail, until this profession, distinguished for independence, dignity, and utility, will be duly appreciated, and rank as the first of arts, as it did in the primeval

condition of man. May its life-giving, harmonizing, and benign influence spread far and wide, and hasten that happy period when Peace shall extend her olive wand over the world,

“And useless lances into scythes shall blend,
And the broad falchion in the ploughshare end.”

CLOSE OF THE YEAR.

The close of the year is a suitable time for reflection. The intelligent cultivator of the soil, as he surveys his crops, and examines the records of his doings the past season, learns many useful lessons. He sees the result of his experiments, and gathers a fresh acquisition of knowledge to aid him in his future operations.

He not only learns from his own experience, but he observes the experiments of his brother farmers; and he also reads what others are doing in various parts of the world, beyond the reach of his personal examinations.

In this way, the judicious farmer embraces every opportunity, and treasures up wisdom from every available source, and grows wiser day by day; and every year adds largely to his fund of knowledge, as is clearly manifested by his superior success.

But few in this age of improvement are willing to plod along in the old beaten track of their fathers, for the spirit of progress is sown broadcast over the land, and scattered into every nook and corner, by numerous books and periodicals, and every one partakes, in some measure, of what is passing around him.

NOTICE TO OUR FRIENDS.

We request every subscriber, and every reader of the *Farmer*, to use their influence in circulating this paper. In this way, with only a little attention, they may do a favor to their friends or neighbors, and much oblige us. The diffusion of useful information conduces to the public welfare, and he that contributes to this end will do good service in a cause of general interest and utility. Will every subscriber show his paper to his friends and, request

them to subscribe, and forward us their names. With a little exertion on the part of our friends, we may gain a large acquisition to our already liberal subscription list.

EFFECTS OF PLASTER.

Mr. David P. Cotton, Meredith, N. H., informs us that, in planting potatoes, he applied a small quantity of manure, and ploughed it in; he then applied plaster of Paris to a part of his potatoes, as he planted them, which increased that part one third over those without plaster. The next year, he sowed the land to wheat, and there was no perceptible increase on the land where plaster had been applied. The third year, the grass crop on the land to which plaster had been applied two years previous, was nearly double that on the land not plastered; and the difference was very apparent in the second crop of grass.

In another experiment, Mr. C. applied plaster to the whole piece, excepting five rows in the centre; no other manure was used. Where the plaster was applied, the produce was a bushel of potatoes to the row; and where none was used, the yield was only a bushel to two and a half rows. Next year, this land was sowed to wheat, and there was no difference in the wheat; but since the wheat was taken off, the superiority of the grass on the plastered part is very evident, both in its growth and dark-green color. The quantity of plaster applied was a heaping teaspoonful, or about an even tablespoonful to a hill.

These evident and important advantages from the use of plaster, as well as hundreds of other similar cases, should induce farmers to try this cheap and portable manure, unless they have already made experiments with it.

CRANBERRIES ON HIGH LAND.

This is a subject of great importance. We have many accounts of cranberries being cultivated on high land; but in some cases cultivators have drawn hasty conclusions from partial experiments, not having waited to see the effect of severe winters and extremely hot and dry summers. As cranberries are very liable to be destroyed by frost on low land, it is desirable that some mode of upland culture that will succeed should be adopted, as in that case the cranberry would prove to be a very profitable crop, as they are usually in demand, and at high prices.

On the 22d page of this volume is a communication from Mr. S. P. Fowler, of Danvers, showing his mode of cultivating the cranberry in the garden, and the excellent success attending it. It is worthy the particular attention of those who are making experiments in cultivating this valuable fruit. We have just received of Mr. F. a specimen of cranberries from his garden, and they are of large size and fine appearance. He remarks as follows:—

"A few days since, I picked my small bed of cranberries; and on this patch of nine feet square, I gathered half a bushel, which, if my figures are right, would give me two hundred and sixty-eight bushels to the acre. These, at two dollars per bushel, would

bring the sum of five hundred and thirty-seven dollars. I send you a specimen of them."

TO DESTROY WITCH GRASS.

Witch or couch grass is a great pest in tillage, and many ways have been devised to destroy it, but they are usually attended with much labor; and in some modes, such as very frequent ploughing during the heat of summer, the crop must be omitted. Mr. Isaac Foster, Andover, informs us that he destroyed this grass by planting fodder corn on the land, in drills, and hoeing it twice. As this is a very cheap and convenient mode of destruction, we hope it will generally prove to be as successful with others as with Mr. F. Will farmers make experiments on this subject, and report to us the result?

THE GADFLY IN CATTLE.

Mr. R. O. Stoddard, Waitsfield, Vt., makes the following remarks on this troublesome insect. We hope that further observations will be made, in order that its habits may be ascertained.

"I saw in the *New England Farmer*, page 126, some account of the gadfly. The writer said that it comes out of the cattle's backs in the spring, and that it lays its eggs in the fall. But I think that he mistakes; for we never find them in the backs of late calves the first year. I think that they are deposited in the month of May. We often see cattle start and run at that season, and I think that is owing to their being attacked by this fly."

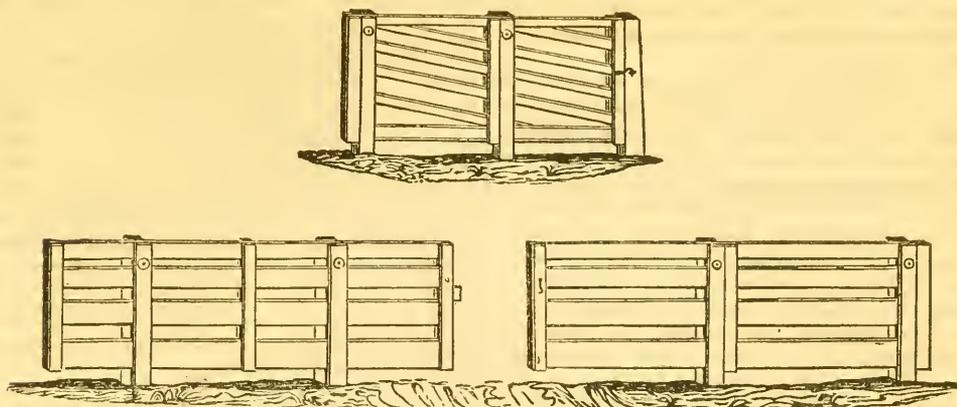
VALUE OF BERKSHIRE SWINE.

A correspondent from New Jersey thus writes us: "Some years since, I had a very fine stock of Berkshire hogs; but from neglect and other causes, they have entirely disappeared; since which, I have not enjoyed the luxury of a good ham on my own table. I am fully satisfied they have been more sinned against than sinning, and am desirous of procuring a few for breeders, but know not where to apply for information, except to yourself."

The above is just what we told the public, over and over again, several years ago, would soon be the complaint, when the demand for this breed of swine began to subside, and they were rejected for some new-fangled notion. Taking every thing into consideration, we think the Berkshire the best farmer's hog ever raised in this country. A large western pork packer, just returned from a six months' tour in Great Britain and Ireland, informs us that he has now got to commence growing a herd of Berkshire swine before he can have a proper mixture of lean and fat in his pork to suit the English market. He also wants lean hams, which he can find nowhere so perfect as in Berkshire pigs.—*American Agriculturist*.

RASPBERRIES.

Mr. Charles Downing, nurseryman, near Newburg, relates that one of his neighbors, this season, sold the product of three acres of raspberries for about fifteen hundred dollars. They were of the large red Antwerp variety. To grow them in this latitude, Mr. D. says the canes must be laid down and slightly covered with earth, say one or two inches deep, before the ground freezes, and thus kept till the spring opens.—*Selected*.



BAKER'S PATENT FARM GATE.

The lower cut represents two gates used to close one passage. That on the right is closed; that on the left is about half way open. The length of each gate is about equal to the width of the passage way, and when closed, one half of the gates form the fence adjoining the passage. This construction makes the gates self-balancing: they run on rollers, and are well balanced whether shut or open: they are managed with the greatest ease. Instead of two gates to close one passage, one may be made, for that purpose, twice as long as the width of the passage way, and it will also form a length of fence.

The upper cut represents a gate operating in the same manner, excepting, as it runs back, it ascends; and it descends and closes by its own weight, so that there is no danger of its being left open by neglect, or of its being opened by animals. This gate is admirably adapted to front yards, as it is neat and convenient; and the manner of opening it, and its self-closing quality, give all the advantages that can be expected from any construction.

The self-balancing power in these gates is an important property, and their convenience, durability, simplicity of construction, and cheapness, are apparent to every observer who inspects the illustrations.

At the New York State Fair, and the Oneida County Fair, premiums were awarded for these gates. Any desired information may be obtained by addressing David H. Lines, Springfield, Mass., who is the authorized agent for New England.

For the New England Farmer.

CORN FOR FODDER.

MR. EDITOR: In travelling, this fall, through a neighboring town, I saw, for the first time in my life, a field of four and a half acres of corn, which, to appearance, was sown broadcast, like rye and oats. The corn was of vigorous growth; with very small ears; very clear from weeds, as much so as if it had been hoed; and yet it was so thick that a man could with difficulty walk through it. The owner being away from home at the time, I could find out but little concerning the corn, excepting I learned from

his hired boy that it was intended for fodder; and not having seen the owner since that time, I send you this communication, to inquire of you or of some of your correspondents (for I understand, in Eastern Massachusetts, it is no uncommon thing to see a field of sown corn) how the ground should be prepared and manured; at what time of the season it should be sown; how many bushels to the acre should be sown; what kind of corn is best for the purpose; and such other direction for the culture and management, as should suggest itself to the writer. As the white worms have eaten the grass lands in this region very much, for a number of months past, which, with the drought last summer, has tended to diminish the usual quantity of grass and hay the past season, and in all probability will the coming season, it is of importance to the farmer who has a large stock of cattle to fatten or winter, to know if a substitute for a light crop of hay can be provided from the means at his disposal, at a time when there is a prospect of a light crop.

CHARLES B. AYER.

PRESTON, CT., Nov. 23, 1849.

EDITORIAL REMARKS.—It is very common for farmers in this section to raise corn to feed out green to cattle, to supply a deficiency in feed from short pastures, which usually fail on old lands the latter part of the summer; and sometimes there is almost a total failure of feed from severe drought.

Whether used green or dry, there is no kind of grain or grass that will yield so much food as corn; and it is very easily raised. Corn flourishes well on land in tolerably good condition, and yields a profitable crop. Some farmers in New England have raised forty tons of green food to the acre; but this is a great crop. We have heard of far greater stories, which we do not credit.

An account has been published of a farmer raising thirty tons of green food to the acre in this vicinity, and of its making twelve tons of dry fodder. Now, we believe the first part of this statement, as it is reasonable; but thirty tons of green stalks will not make twelve tons of dry fodder; probably not more than six tons.

Land in suitable condition to produce fifty bushels of corn to the acre, will probably yield about six

tons of dry fodder, worth nearly or quite as much as good hay. This shows how admirably this branch of husbandry is adapted to make up a deficiency in the hay crop.

For a crop of corn fodder, prepare the land and put it in good tilth as for a common crop of corn or wheat. Spread the manure. Some sow broadcast, but we prefer sowing in drills, and giving it one dressing with the cultivator and hoc. Make the drills from two and a half to four feet apart, according to the growth of the kind planted. The grain is dropped thick, so that the stalks will be only two or three inches apart, or, in a drill of a few inches in width, there will often be a stalk to every inch in length, as they stand by the side of each other.

For early use, corn may be sowed as early as the usual time of planting, and other lots later in succession. For a large crop for dry fodder, it is better to sow the former part of June, that it may be cured while the weather is warm. For late green food, sow the latter part of June. The farmer can ascertain how the hay crop will be, in season for raising a crop of corn fodder. The time of sowing varies in different parts of the country, and on different locations, on account of frosts.

Some sow the large southern corn, as it yields a large crop; others dislike it, as it is coarse, and prefer the northern corn. This question is not settled. Sweet corn is better than either, and the Chinese Tree corn is probably better than any other kind, being rather luxuriant, yielding a large crop, and furnishing fodder of excellent quality.

But very few farmers know of the great advantages of green or dry corn fodder to supply a deficiency in pasturage or in hay. It grows well in dry seasons, when our grasses fail. With corn and roots we can get a large amount of food for stock, and they may be had in good condition at all seasons of the year. We shall be happy to hear from our correspondents on this subject.

—◆—
For the New England Farmer.

FORESTS, THEIR PROPER PLACE, &c.

MR. COLE: It would seem that the most suitable place for forests is so evident that no one of any experience could be liable to mistake; but every-day observation shows that this is not the fact. Farmers continue to clear land, which, in ten years from the time of clearing, will not be worth fencing, for pasture or tillage. On every hand we see pastures white with "June grass," and almost as barren as the deserts of Africa; and if we examine further, we shall find the cows, that are pastured on this worthless land, dying with the bone disease and horn ail.

Now, this might easily be remedied on land not already cleared, by clearing only such portions as will continue to produce good grass for a long series of years, and on those lands from which the wood has been taken, by protecting from cattle and allowing them to "grow up."

In all mountainous or hilly countries, every farmer has observed that the land which faces in one direction is much more fertile than that which faces in the opposite direction; and in countries long cultivated, levels are more productive than hill-sides. In this vicinity, and in New England generally, soils

which slope towards the east are good, and those opposite are poor; owing, I suppose, to the prevalence of west and north-west winds, which blow the snow and leaves from the west to the east sides of hills, and perhaps also prevent the fertilizing gases contained in the atmosphere from settling about the roots and leaves of plants within its immediate range.

The practical inference from this is, that as trees protect the soil from the injurious action of winds, and enrich it by the accumulation of vegetable matter in the form of leaves, land in exposed situations should be sown with the seeds of forest trees; or, if the soil is sandy, it would perhaps be better to set it with locust-trees, which will spread from the roots and soon cover the ground. There is also a great advantage in allowing trees to stand on the summits of hills, or even a little over the east side, and strew their leaves on the land below. As to the best variety of trees to plant, much depends on the situation. The oak, chestnut, ash, &c., are valuable for timber, while black and yellow birch, and sugar maple, are better for fuel. The latter, however, should stand on rich land when intended for the purpose of making sugar. But the kind of tree which I should prefer for a first growth, on old, worn-out side hills, is the white birch, as it grows quick and requires but little strength of soil; and although not so lasting as some kinds of fuel, yet, when thoroughly dried, it burns well, and, considering its quick growth, it is not unprofitable. W.

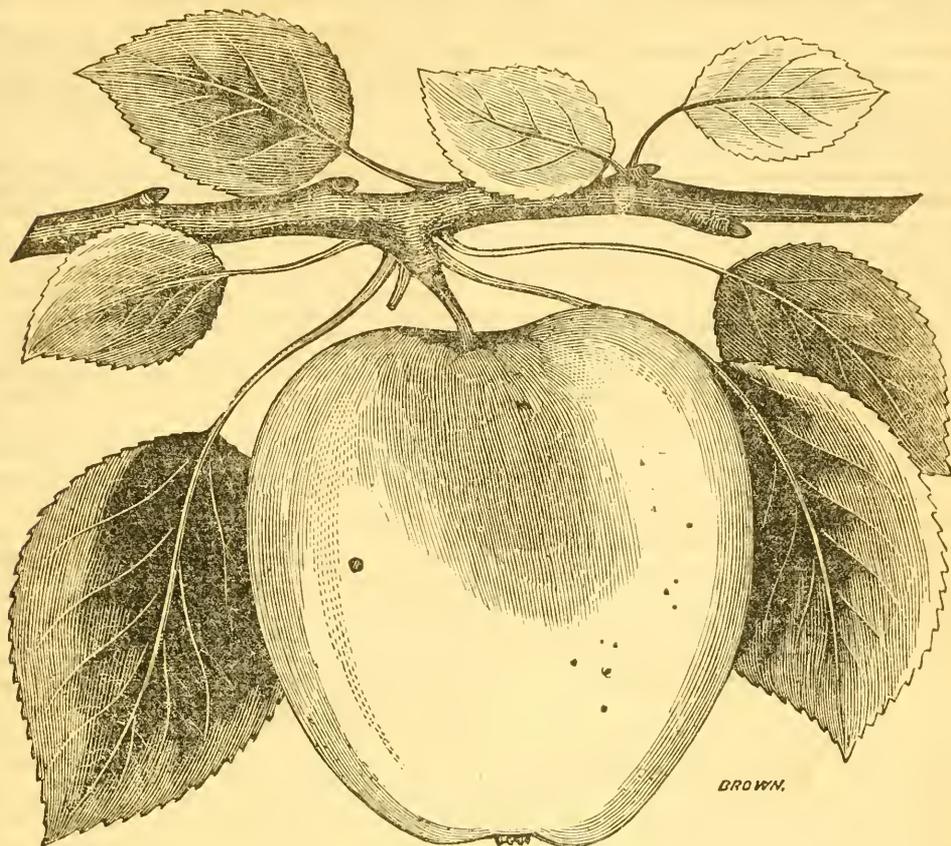
FRANKLIN COUNTY, Nov. 25.

LONG MANURE

Vegetable and animal matters, when brought into a state of fermentation by the agency of air, heat, and moisture, immediately give off carbonic acid gas, which, if confined beneath the surface of the soil, will become mixed with the moisture there, and be taken up by the roots of plants. And what is carbonic acid gas? It is composed of two parts of oxygen, a constituent of atmospheric air, and one part of carbon, the principal constituent of plants, rendered volatile by the heat of fermentation. It is the digested food of plants; it becomes incorporated with water in the soil; is taken up by the spongioles or roots of plants; transmitted through the sap vessels to the leaves; is there decomposed by the sun's rays; the oxygen passes into the atmosphere; the carbon passes down through another set of vessels, and being gradually disengaged from the water which conveys it, by evaporation, it becomes a solid substance of the plant. Carbon constitutes principally the structure of the stems, branches, and roots of plants, and it can only find access into plants in a fluid state, combined with oxygen. From this view of the matter, the reader will understand why we recommend long manure for hoed autumnal ripening crops, and why we insist that one half of the value of cattle dung is lost by suffering it to be reduced to the condition of short muck before it is buried in the soil. All vegetable matters contain more or less carbon; and carbonic acid gas is invariably produced in the fermenting and putrefying processes. — *Genesee Farmer.*

EXPERIMENTS.

There is no way of making improvements in farming but by experiments. If the farmer is informed of, or has conceived, a different and better method of culture or management in any branch of his farming, he is to test the goodness of that method by experiments; and, if these prove successful, he may congratulate himself on having performed an act which is serviceable to his country and honorable to himself. — *Farmer's Assistant.*



THE PORTER APPLE.

This is one of the most popular apples in New England. The original tree was raised by Rev. S. Porter, Sherburne, Mass.

The fruit is large and very fair; oblong, and narrowing rapidly to the eye; skin smooth, glossy, bright yellow, with a dull blush full in the sun; stem tolerably long, medial size, in a deep cavity; calyx large, open, in a rather narrow basin; flesh yellowish, tolerably fine, juicy, of a rich, sprightly, subacid flavor. This apple, all things considered, is one of the best for the market. It is excellent for cooking, and some regard it as first rate for the table; but others consider it rather too acid, and of rather too hard pulp to rank with our very best apples for the dessert. In this region, it is in use from the 1st of September to the 10th of October.

The tree of the Porter is a moderate grower, or rather less than medial in the nursery; but as a standard, it grows well, and forms a large tree. It is very productive, and yields the principal part of its fruit in alternate (even) years.

In this region, the Porter apple is in use at a season when many other good apples are in the market, and when the principal pears and plums are ripe; also in the great season for peaches; therefore the sale of

this fruit, in years of plenty, (even,) is rather dull. Cultivated farther north, where it flourishes well, it will ripen for this market in October, when it will bear a higher price than in September, as transient fruits are much scarcer in the former month. We have known the Porter apple to sell for one dollar per barrel in September, and for five dollars per barrel early in October.

POTATO ROT.

The potato rot seems, like the cholera, to be passing away from Europe and America. On this continent, in Nova Scotia, where it first appeared, there is little or none of it the present year; and the potatoes from that region come now as they did formerly, — excellent beyond those of all other countries. In the United States, a very little complaint is made, nearly all the destruction being confined to the fields before digging, and nothing of it found after the potatoes had been harvested a week or two. — *Newburyport Herald*.

The potato dealers in our city inform us, that their experience is the reverse of this; that they are obliged to pick over the potatoes raised in this quarter, and to lose many, on account of "the dry rot;" that the Maine potatoes are least affected; and that

the Nova Scotia potatoes are worst of all. — *Essex County Mercury*.

REMARKS BY EDITOR N. E. FARMER. — From our own observation and experience, we do not think that the main cause of the potato rot has abated; yet the predisposing or secondary causes have been less severe the present season. Warm and wet weather is a powerful predisposing cause, and the weather, in the summer and early part of the fall, was very warm. From the time of planting potatoes in the spring to a period sufficiently late for harvesting, we had no excessive rains, and but little hot weather during the time of rains.

Considering these circumstances, our potatoes rotted as much as usual before digging, and some of them are now rotting in the cellar, though we disposed, at the time of harvesting, of those most liable to rot. This is an important subject, and farmers should have correct information on it, in order to guard against the rot in future, for a great deal may be done to avoid it, by a judicious selection of soil and manure, the mode of planting, and the time of planting and harvesting, and in the selection of hardy varieties, which is the most important and the easiest mode of avoiding the malady.

Domestic Department.

EDUCATION. — Every person must be self-educated to a great degree. Most people think, therefore, that education does not begin till the child is sent to school, and is conducted solely by the teachers employed for that purpose. This is a sad and very injurious mistake. Education begins in the domestic circle; the eyes of the mother are the first teacher. Father, mother, brothers and sisters, servants and visitors, all aid in the great work. These home influences have no small effect in the intellectual development of the pupil, and they often so entirely furnish the foundation of the moral character, that no subsequent teaching or discipline can change its nature or bearing. To these influences the most earnest efforts of moralists and ministers of the gospel are merely secondary for good, and useless against evil. Let home influence be that of firm and gentle government, producing the habitual impression on the mind of the child, that the will of the parent is right and absolute law; let the child have learned cheerfully and happily to yield to this, and that child will infallibly be a lovely pupil, esteemed and cherished by its teachers; will be a docile and rapidly improving scholar; will grow up to be a law-abiding and valuable citizen, and most likely an humble and devoted Christian.

But, as is too much the case in our day, let the home influence be that of too much indulgence or neglect; let every thing be just as the child chooses; let the opinion and choice of the child rule that of the parent; let the child say, I won't, or I don't want to do this thing, or that thing; I won't go to this school, this teacher, or attend to this study; and if the child is corrected for impertinence or idleness, let the parent join in blaming the teacher as cruel and brutish, and it needs no prophetic foresight to predict, that the child will be a dunce in the school, a rebel against the discipline, a bad, unruly citizen, a tyrant in his own house, without one delicate trait of moral goodness, probably never a true

Christian, or at best a self-conceited "trouble in Israel."

This is the plague of all the schools at the present day. The children govern at home, and if they cannot govern at school, they won't go any longer, and parents let them do as they please. — *American Spectator*.

APPLE CUSTARD. — To make the cheapest and best every-day farmer's apple custard, take sweet apples that will cook, (such as every farmer ought to have through the summer, fall, winter, and spring,) pare, cut, and stew them; when well done, stir till the pieces are all broken; when cool, thin with milk to a proper consistency, and bake with one crust, like pumpkin pie. Egg may be prepared and added with the milk if handy, though it will do without. No sweetening is necessary. It may be seasoned with any kind of spice to suit the taste—the less the better. H.

— *Ohio Cultivator*.

Boys' Department.

THE BEAUTIFUL TOTAL ABSTINENCE BOYS. — Ancient history tells us of four boys, of great beauty and intelligence, that were carried captives from their native country, and presented to the king, a mighty monarch, to stand before him as his most honored servants. These favored youths were provided with every means which the court of this great monarch could furnish for making them skilful in all wisdom, cunning in knowledge, and understanding science, beautiful in person, and accomplished in manners. The richest fruits and most delicious wines were given to nourish them. But they were lads of greater wisdom than even those persons who were set to perfect and polish them. And when the wine was brought them to drink, they decided among themselves, "none for us." It is not said that they signed a pledge, but they formed a total abstinence society, and it was impossible for those who were set over them to break their rank. "If you pine away," said they, "we shall endanger our heads to the king." "But," said the boys, "give us water to drink ten days, and then if our countenances look not better than the countenances of those who drink wine, deal with us as you see fit." The experiment was eminently successful. Their countenances were fairer than all the children who partook of the king's delicacies.

For the character of these youths, when they became men, look into your Bible, in the book of Daniel. — *Bombay Temperance Advocate*.

Health.

THE EVIL OF LATE HOURS. — The rising sun draws forth qualities from earth and vegetation most conducive to the moral and physical health of the waking man; the invisible air is laden with properties which stimulate his powers and refine his faculties. This, then, must be the proper period for quitting the bed-chamber, into which the breath has been exhaled for many hours, and the pores have been rapidly emitting their secretions; the conjoined effect being such as to render the air mephitic and unfit for inhalation into the lungs. Miss the morning air, and you daily miss the most valuable draught of medicine that can be prescribed. The most subtle logician cannot gainsay this fact; but even were it

not syllogistically demonstrable, the instincts of the animal and vegetable world would bear testimony to it in the example they set to man. No man should sleep less than six hours out of the twenty-four — none in the enjoyment of health more than eight. Every hour devoted to sleep before midnight is so much gain of natural advantages, which have less influence after that time, as we then begin to "scent the morning air," and lose the benefit of that state of the atmosphere which the total absence of the sun creates. All nature sleeps at night, and so should man.

Mechanics' Department, Arts, &c.

FACTS FOR MECHANICS. — St. Paul was a mechanic — a tent-maker. Our Savior was a mechanic — a carpenter. The great Architect of the universe, in the mechanism of the heavens and the earth, with its productions, animate and inanimate, displays a power and skill which human hands and human wisdom may attempt to imitate, but which they can never equal, or approach.

Next to farmers, mechanics are the most numerous and the most important class of community. Whatever promotes their interest, of course promotes the interest of the public. They, like farmers, have great facilities and great inducements to become men of science and sound knowledge. Every mechanic, in every operation, brings into use some principle of science; which principle it is, of course, his interest and his convenience to understand.

Every apprentice boy, no matter how assiduous or how rigorous his employment, if he spends a few minutes daily in useful reading and other modes of improvement, is certain to be a man of future influence and respectability. That apprentice who seeks most assiduously the interests of his employer, promotes most effectually his own interest; as character is the best capital a young man can have for the commencement of business.

Mechanics, like farmers, make safe and enlightened statesmen. They are well educated for legislators, and for other offices, because educated in schools of experience. Who can be better qualified to make laws for aiding the operations of business than those engaged in these operations?

A machine has been brought into use in England, which will make 35,000 letter envelopes in a day.

MANAGEMENT OF HOGS.

For the last four or five years, I have fattened spring pigs, believing them to be the most profitable. The way I manage is this: I take pigs about the middle of March, and when they are about one month old, I put them in a small lot contiguous to the house, so that I can feed them regularly on milk and Indian meal. I put the sows in good pasture, and turn them in with the pigs three times per day, until some time in July, when I turn the sows and pigs into my orchard, where they get the most of their living until October; then I feed them on new corn until the first of December, when I put them up in a tight pen, and feed them on corn-meal and mush until some time in January. When I kill them, they average from two hundred and fifty to two hundred and seventy-five pounds, and I am almost convinced that they are more profitable than wintered hogs weighing four hundred pounds; but I stand

open to conviction. Perhaps some of your able correspondents may convince me otherwise. W. R.

MERCER COUNTY, N. J., 1849.

— *Philadelphia Dollar Newspaper.*

MANURE FOR FRUIT TREES.

The best compost for "all fruit trees," (without endeavoring to suit the specific wants of each particular fruit,) is a compost of peat, or swamp muck, reduced, or rendered available to plants, by unleached wood ashes. The peat should, if possible, be dug and carted out in winter, though it will answer if dug in the spring. As early in the spring as is convenient, mix thoroughly the wood ashes with the peat, in the proportion of five bushels of good hard wood ashes to one wagon load of peat. Let the heap lie a week, turn it over to incorporate more freely, and in two or three weeks it will be fit for use. This compost, or manure, contains (largely) lime, potash, phosphate, and vegetable matter, the elements most necessary to the growth and health of fruit trees generally, and all in a state ready for food for the trees.

A FARMER.

— *Philadelphia Dollar Newspaper.*

TOP-DRESSING FOR GRASS LANDS.

Bones dissolved in muriatic acid will be a good top-dressing for grass lands. Boiled will be more easily dissolved than raw bones. They must be put in a vessel, wetted till they will take up no more water, and then have the acid poured over them. — *Farmer's Herald.*

ACKNOWLEDGMENTS.

Colonel Libbeus Chase, of Cornish, N. H., who has paid great attention to seedling grapes, and has raised several valuable varieties, has sent us the following kinds — *Nizola*: this is a sweet grape, of medial size, ripening about the middle of September. The quality is very good, and its early ripening gives it an importance. *Early Isabella* is a very pleasant fruit, resembling its parent, the Isabella, in quality. We think the quality is hardly equal to the original, but it might not be well ripened. The bunch is large and compact, and in berry it is much larger than the Isabella. This fruit ripens the latter part of September, and it keeps remarkably well. We have them now in fine condition. The *Beaverdam* is of a high vinous flavor, resembling the Catawba, excepting it is more acid. It appears to be a good wine grape, with the use of sugar, to modify its acidity; and Colonel Chase informs us that he has made good wine of this grape. It ripens the latter part of September, about a month earlier than the Catawba; therefore it may answer as a wine grape in regions too far north for the Catawba. The *Beaverdam* has a very large and compact bunch, and a large berry. We know but little of the habits of these grapes, though we have recently had them under experiments. The *Nizola* is rather tender. We have also of Colonel Chase several other varieties, of which we are not prepared to give an opinion. In previous years, we received from the same source Coon and Strawberry grapes. The Coon is of a small size, but it is sweet and pleasant, and it ripens the last of August, which is a valuable property. The Straw-

berry ripens the 1st of September. It is of a pleasant sharp acid, but high flavor. By the middle of September, it becomes thoroughly ripe, and keeps well on the vine, and it is then of a good quality. The berry is small, but the bunches rather large and compact. For several years we have cultivated these two varieties, and we had fruit from them this season. They are great growers, and very hardy. Their earliness, with their valuable habits, gives them an importance. As we have much less experience with these than our venerable friend who has kindly furnished them to us, we cannot do justice to the subject.

Of Luther Gilbert, Grantville, Needham, Riley potatoes. We never saw finer potatoes than they are baked; but in boiling they were so mealy that they broke into pieces, and were scattered in the water; so we think that they would be excellent for potato pottage. We never saw this variety before under this name, but we think that it is identical with the Early Worcester. We intend to give them a thorough test, another season, by planting them with the Early Worcester.

Of Captain Amos Perry, South Natick, a good vine of Perry's Native, which is among the best, if not the very best wild grape that we have tasted.

From John Washburn, Plymouth, Pear quinces of enormous size. The largest weigh one pound two ounces. Mr. W. had some specimens still larger. They were raised on light, sandy soil; and such noble productions, under disadvantages as to soil, do great credit to the skilful cultivator.

From Mark Morse, Francistown, N. H., apples of a good size, and very fair, handsome, and of fair quality. They are doubtless a new variety.

From R. O. Stoddard, Waitsfield, Vt., some excellent, purified maple sugar, equalling, in appearance, refined sugar. It appears by the note sent with it, that the package was a long time on the way.

Of Charles L. Spaulding, Cavendish, Vt., several varieties of apples, among which are the Spaulding Sweet, a fair, handsome apple, of good size, and tolerably good quality. One variety resembles the Seaver Sweet in appearance, but it is different in quality. One is a little, beautiful, red apple, as handsome and as good as the Fameuse, and it resembles that famous variety.

WATER CURE JOURNAL.—PHRENOLOGICAL JOURNAL. We would direct the attention of the reader to the advertisement of these periodicals on our cover. Pure water, which abounds in nearly all parts of the world, is a powerful remedial agent; and by this simple element alone, many severe and apparently obstinate diseases have been cured. Phrenology, pursued as a study, is doing much in the cause of education, and tends to illustrate many difficult metaphysical subjects, and develop the science of mind. By intelligent gentlemen devoting their whole energies to distinct branches, they discover important facts, which otherwise would lie dormant forever.

THE PLOUGH AND THE SICKLE.

BY HON. T. BURGESS, OF RHODE ISLAND.

With a Pioneer Axe, what a conquest is made!
What a field from the forest is won!
What regions, reduced from the wilderness shade,
Are now warmed in the beams of the sun!

From the rock where our fathers in exile first landed,
Their clearing from river to river has spread;
And mountains and plains by their sons are commanded,
Till now on the beach of Pacific they tread.

What a farm for a nation to cultivate now,
And gather the wonderful harvest it yields!
'Tis an Empire reduced to the Sickle and Plough,
An Empire of gardens, and orchards, and fields.

Hail, Nation of Farmers! rejoice in your toil,
And shout when your harvest is o'er;
Receive the oppressed to your land with a smile,
But frown every foe from your iron-bound shore.

And he who, by deeds, has now reached a high station,
And is called to preside o'er the commonwealth now,
Must relinquish his farm to save our young nation,
As for Rome Cincinnatus relinquished his plough.

The Plough and the Sickle shall shine bright in glory,
When the sword and the sceptre shall crumble in rust;
And the farmer shall live, both in song and in story,
When warriors and kings are forgotten in dust.

THE OLIO.

An old offender was lately brought before a learned justice of the peace. The constable, as a preliminary, informed his worship that he had in custody John Simmons, *alias* Jones, *alias* Smith. "Very well," said the magistrate, "I will try the *two women* first: bring in *Alice Jones*."

The sandal-tree perfumes, when riven,
The axe that laid it low;
Let man, who hopes to be forgiven,
Forgive and bless his foe.

A man once rushed into a fight, and after beating the combatants indiscriminately, some one asked him which side he was on. "I beg pardon," was his reply; "I thought it was a *free fight*!"

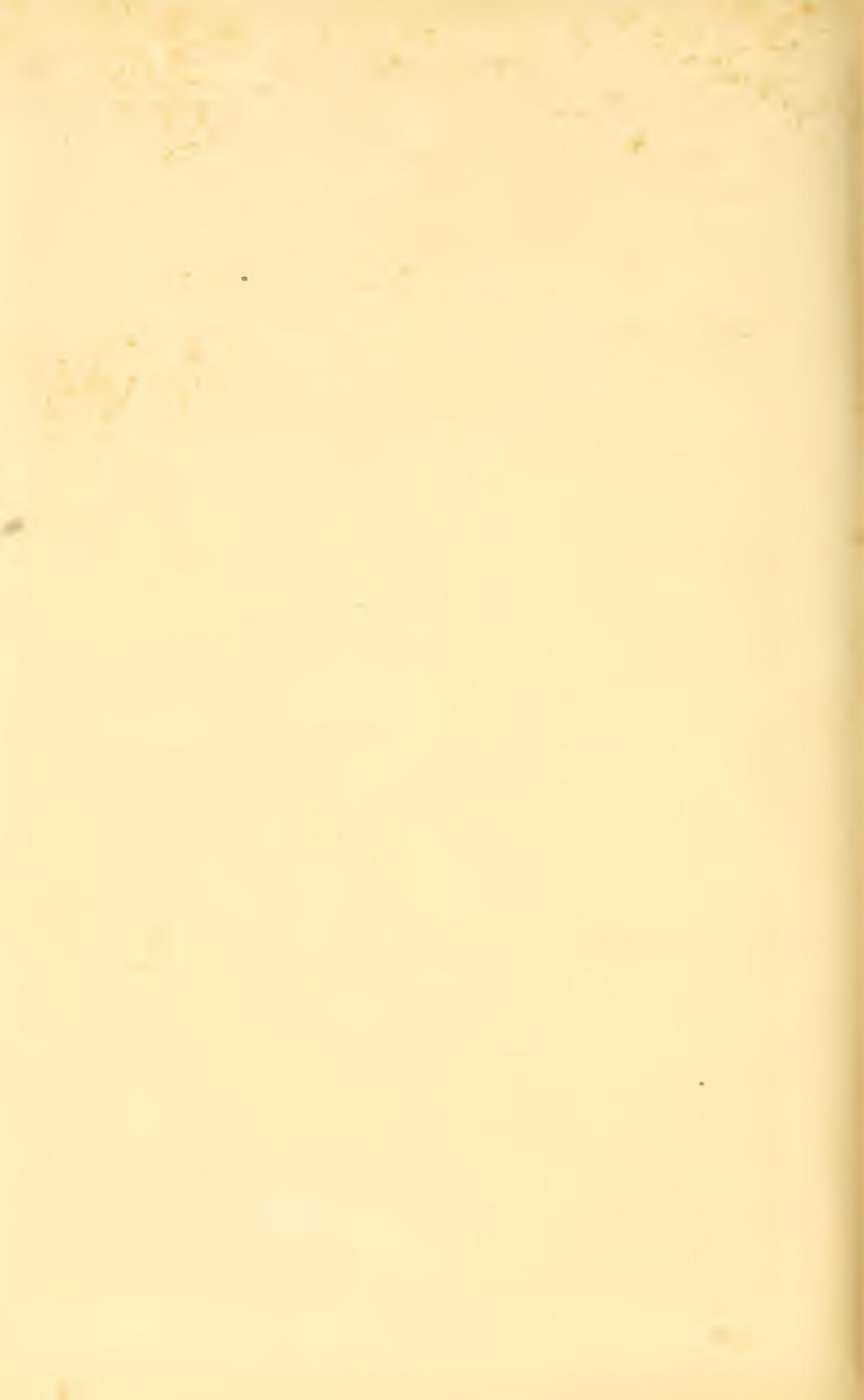
AN ENGLISH BULL.—An English paper, alluding to the queen's visit to Ireland, says, that the *shouts* with which she was received, was a *sight* ever to be remembered.

TERMS.—THE NEW ENGLAND FARMER is published every other Saturday, making a neat and handsome volume, at the close of the year, of 416 pages, at \$1 a year, or five copies for \$4, payable in advance. It may be neatly bound at 18½ cents, or elegantly bound in muslin, embossed and gilt, at 25 cents a volume. As it is stereotyped, back numbers can be furnished to new subscribers.

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